

AZIMUTH OR TRUE BEARING.

LATITUDE 25°.			DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 25°.			
Hour Angle.			60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.	0
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00
	10	2 11	2 03	1 57	1 51	1 44	1 39	1 33	1 27	1 23	1 18	1 12	1 06	1	10	10 10
	20	4 21	4 06	3 53	3 41	3 28	3 17	3 06	2 54	2 44	2 35	2 24	2 14		20	20 20
	30	6 28	6 08	5 48	5 29	5 11	4 54	4 37	4 21	4 05	3 50	3 36	3 20		30	30 30
	40	8 34	8 07	7 41	7 16	6 52	6 29	6 07	5 47	5 26	5 06	4 47	4 27		40	40 40
	50	10 36	10 03	9 30	8 50	8 31	8 02	7 36	7 10	6 44	6 21	5 57	5 33		50	50 50
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	10	14 28	13 43	13 01	12 20	11 40	11 03	10 26	9 51	9 16	8 44	8 12	7 40		10	10 20
	20	16 16	15 27	14 39	13 54	13 11	12 29	11 47	11 08	10 29	9 53	9 18	8 42		20	20 30
	30	17 59	17 06	16 14	15 25	14 37	13 50	13 06	12 22	11 40	10 50	10 20	9 40		30	30 40
	40	19 36	18 39	17 45	16 51	15 59	15 09	14 21	13 34	12 48	12 04	11 21	10 36		40	40 50
	50	21 08	20 07	19 09	18 13	17 17	16 24	15 33	14 42	13 53	13 06	12 19	11 29		50	50 50
2	00	22 33	21 30	20 30	19 30	18 32	17 35	16 41	15 47	14 55	14 04	13 15	12 25	2	00	00 10
	10	23 53	22 48	21 44	20 42	19 41	18 42	17 45	16 49	15 54	15 00	14 08	13 16		10	10 20
	20	25 07	24 00	22 54	21 49	20 46	19 45	18 45	17 47	16 49	15 53	14 59	14 04		20	20 30
	30	26 15	25 06	23 59	22 53	21 48	20 44	19 42	18 41	17 42	16 44	15 47	14 51		30	30 40
	40	27 17	26 07	24 58	23 51	22 44	21 39	20 36	19 33	18 30	17 31	16 32	15 33		40	40 50
	50	28 14	27 02	25 52	24 44	23 35	22 29	21 24	20 20	19 17	18 15	17 14	16 14		50	50 50
3	00	29 06	27 53	26 42	25 32	24 23	23 15	22 10	21 04	19 59	18 56	17 54	16 51	3	00	00 10
	10	29 51	28 37	27 27	26 17	25 07	23 59	22 51	21 44	20 38	19 34	18 30	17 25		10	10 20
	20	30 33	29 20	28 08	26 57	25 46	24 37	23 29	22 21	21 14	20 08	19 03	18 00		20	20 30
	30	31 09	29 56	28 44	27 33	26 21	25 11	24 03	22 55	21 47	20 40	19 34	18 27		30	30 40
	40	31 40	30 28	29 16	28 04	26 52	25 42	24 34	23 25	22 16	21 09	20 01	18 53		40	40 50
	50	32 08	30 55	29 43	28 32	27 20	26 10	25 01	23 51	22 42	21 34	20 27	19 17		50	50 50
4	00	32 31	31 19	30 07	28 56	27 44	26 33	25 24	24 14	23 05	21 56	20 49	19 40	4	00	00 10
	10	32 50	31 38	30 27	29 16	28 05	26 54	25 44	24 34	23 25	22 16	21 09	19 59		10	10 20
	20	33 05	31 54	30 43	29 32	28 21	27 11	26 01	24 51	23 42	22 33	21 25	20 15		20	20 30
	30	33 16	32 05	30 55	29 45	28 34	27 24	26 15	25 05	23 56	22 48	21 39	20 29		30	30 40
	40	33 24	32 13	31 04	29 55	28 44	27 35	26 26	25 16	24 07	22 58	21 50	20 39		40	40 50
	50	33 28	32 19	31 10	30 00	28 51	27 42	26 34	25 24	24 16	23 08	21 59	20 48		50	50 50
5	00	33 29	32 21	31 12	30 03	28 54	27 46	26 38	25 29	24 22	23 13	22 05	20 55	5	00	00 10
	10	33 37	32 29	31 12	30 03	28 55	27 47	26 40	25 32	24 24	23 17	22 09	20 59		10	10 20
	20	33 41	32 34	31 08	30 01	28 53	27 46	26 40	25 32	24 24	23 17	22 11	21 01		20	20 30
	30	33 43	32 36	31 00	29 55	28 48	27 42	26 36	25 29	24 22	23 16	22 10	21 00		30	30 40
	40	33 01	31 56	30 51	29 46	28 40	27 35	26 30	25 24	24 18	23 12	22 06	20 56		40	40 50
	50	32 47	31 43	30 39	29 35	28 30	27 25	26 21	25 16	24 11	23 06	22 01	20 45		50	50 50
6	00	32 30	31 27	30 24	29 21	28 17	27 13	26 10	25 06	24 01	22 57	21 53	20 48	6	00	00 10
	10	32 10	31 07	30 07	29 04	28 01	26 59	25 57	24 53	23 50	22 47	21 43	20 38		10	10 20
	20	31 48	30 45	29 46	28 43	27 43	26 42	25 41	24 39	23 36	22 34	21 31	20 26		20	20 30
	30	31 23	30 24	29 24	28 24	27 23	26 23	25 22	24 22	23 20	22 19	21 17	20 12		30	30 40
	40	30 56	29 58	28 59	28 01	27 01	26 02	25 02	24 02	23 02	22 01	21 01	20 00		40	40 50
	50	30 26	29 29	28 32	27 34	26 36	25 38	24 40	23 41	22 42	21 43	20 43	19 43		50	50 50
7	00	29 54	28 58	28 03	27 06	26 09	25 12	24 14	23 17	22 20	21 22	20 24	19 25	7	00	00 10
	10	29 20	28 25	27 30	26 35	25 39	24 43	23 48	22 52	21 55	20 59	20 02	19 05		10	10 20
	20	28 44	27 50	26 56	26 02	25 07	24 13	23 19	22 24	21 29	20 34	19 38	18 42		20	20 30
	30	28 05	27 13	26 20	25 28	24 34	23 41	22 48	21 55	21 01	20 07	19 12	18 16		30	30 40
	40	27 24	26 33	25 43	24 51	23 59	23 07	22 16	21 24	20 31	19 39	18 46	17 51		40	40 50
	50	26 41	25 51	25 02	24 12	23 22	22 31	21 41	20 50	20 00	19 09	18 17	17 25		50	50 50
8	00	25 56	25 07	24 20	23 32	22 42	21 54	21 05	20 15	19 26	18 36	17 47	16 56	8	00	00 10
	10	25 08	24 22	23 35	22 48	22 01	21 14	20 27	19 39	18 51	18 03	17 15	16 25		10	10 20
	20	24 20	23 35	22 49	22 04	21 18	20 33	19 47	19 01	18 14	17 28	16 41	15 53		20	20 30
	30	23 29	22 45	22 02	21 17	20 33	19 49	19 06	18 21	17 36	16 52	16 07	15 19		30	30 40
	40	22 35	21 53	21 11	20 29	19 46	19 04	18 22	17 39	16 56	16 14	15 30	14 44		40	40 50
	50	21 41	21 00	20 20	19 39	18 59	18 18	17 38	16 57	16 16	15 35	14 53	14 11		50	50 50
9	00	20 44	20 05	19 27	18 48	18 09	17 30	16 52	16 12	15 33	14 53	14 14	13 34	9	00	00 10
	10	19 45	19 08	18 32	17 55	17 17	16 41	16 03	15 26	14 49	14 12	13 34	12 54		10	10 20
	20	18 45	18 10	17 35	17 00	16 25	15 50	15 15	14 39	14 04	13 28	12 52	12 16		20	20 30
	30	17 43	17 10	16 37	16 04	15 30	14 57	14 24	13 51	13 17	12 43	12 10	11 35		30	30 40
	40	16 39	16 09	15 38	15 07	14 34	14 04	13 33	13 01	12 29	11 57	11 27	10 54		40	40 50
	50	15 35	15 06	14 37	14 07	13 38	13 08	12 40	12 10	11 41	11 11	10 42	10 12		50	50 50
10	00	14 29	14 01	13 35	13 07	12 40	12 13	11 45	11 19	10 51	10 24	9 56	9 28	10	00	00 10
	10	13 21	12 56	12 31	12 06	11 41	11 16	10 51	10 25	10 00	9 35	9 10	8 43		10	10 20
	20	12 13	11 50	11 27	11 04	10 41	10 18	9 55	9 32	9 08	8 45	8 23	7 54		20	20 30
	30	11 03	10 42	10 22	10 00	9 40	9 19	8 58	8 37	8 16	7 55	7 34	7 06		30	30 40
	40	9 52	9 33	9 14	8 56	8 37	8 19	8 00	7 41	7 23	7 04	6 46	6 18		40	40 50
	50	8 39	8 24	8 07	7 51	7 35	7 19	7 02	6 46	6 29	6 13	5 56	5 29		50	50 50
11	00	7 28	7 13	6 59	6 45	6 30	6 16	6 03	5 49	5 34	5 21	5 06	4 46	11	00	00 10
	10	6 14	6 02	5 50	5 39	5 27	5 15	5 03	4 51	4 40	4 27	4 16	4 00		10	10 20
	20	4 59	4 50	4 40	4 31	4 22	4 13	4 03	3 54	3 44	3 35	3 25	3 10		20	20 30
	30	3 45	3 38	3 31	3 24	3 17	3 10	3 02	2 56	2 48	2 41	2 34	2 19		30	30 40
	40	2 31	2 26	2 21	2 16	2 12	2 06	2 02	1 58	1 52	1 48	1 43	1 30		40	40 50
	50	1 15	1 13	1 10	1 08	1 06	1 04	1 01	0 58	0 56	0 54	0 52	0 40		50	50 50
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		12	00 00

AZIMUTH OR TRUE BEARING.

LATITUDE 26°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 26°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	130 54	113 22	89 27	65 23	47 31	35 44	28 19	23 08	19 26	16 40	14 31	12 51	1	00
0	20	112 45	101 24	88 54	76 18	64 42	54 48	46 40	40 08	34 54	30 40	27 12	24 21	1	10
0	30	104 47	96 46	88 21	79 52	71 40	64 01	57 08	51 04	45 47	41 12	37 15	33 50	1	20
0	40	100 18	94 09	87 48	81 25	75 06	69 03	63 20	58 02	53 12	48 49	44 51	41 19	1	30
0	50	97 19	92 21	87 15	82 07	77 01	72 01	67 12	62 37	58 18	54 16	50 31	47 05	1	40
1	00	95 08	90 57	86 42	82 24	78 07	73 53	69 45	65 44	61 54	58 14	54 45	51 30	1	50
1	10	93 25	89 49	86 08	82 27	78 45	75 05	71 28	67 56	64 29	61 09	57 57	54 55	2	00
1	20	91 58	88 48	85 35	82 20	79 05	75 51	72 38	69 28	66 21	63 20	60 24	57 33	2	10
1	30	90 44	87 53	85 01	82 08	79 13	76 19	73 26	70 33	67 44	64 59	62 15	59 37	2	20
1	40	89 37	87 03	84 27	81 50	79 12	76 34	73 56	71 20	68 45	66 12	63 41	61 14	2	30
1	50	88 36	86 15	83 53	81 29	79 05	76 40	74 16	71 52	69 29	67 07	64 47	62 29	2	40
2	00	87 39	85 29	83 18	81 06	78 53	76 40	74 26	72 12	70 00	67 48	65 37	63 28	2	50
2	10	86 46	84 45	82 43	80 30	78 37	76 33	74 29	72 24	70 21	68 17	66 14	64 13	3	00
2	20	85 55	84 01	82 08	80 14	78 18	76 22	74 25	72 29	70 33	68 37	66 41	64 46	3	10
2	30	85 05	83 19	81 32	79 44	77 56	76 07	74 18	72 28	70 38	68 50	67 00	65 11	3	20
2	40	84 17	82 37	80 56	79 15	77 32	75 49	74 06	72 22	70 39	68 55	67 11	65 27	3	30
2	50	83 30	81 55	80 20	78 43	77 06	75 29	73 51	72 13	70 34	68 54	67 16	65 37	3	40
3	00	82 44	81 13	79 43	78 11	76 39	75 05	73 32	71 59	70 25	68 50	67 16	65 42	3	50
3	10	81 58	80 32	79 05	77 38	76 00	74 41	73 11	71 42	70 11	68 42	67 12	65 41	4	00
3	20	81 13	79 59	78 27	77 03	75 30	74 14	72 48	71 22	69 56	68 30	67 03	65 36	4	10
3	30	80 28	79 08	77 48	76 27	75 07	73 45	72 22	71 00	69 37	68 14	66 50	65 26	4	20
3	40	79 42	78 26	77 09	75 44	74 33	73 14	71 54	70 35	69 16	67 56	66 34	65 14	4	30
3	50	78 58	77 44	76 29	75 14	73 58	72 42	71 26	70 09	68 52	67 34	66 16	64 59	4	40
4	00	78 12	77 01	75 48	74 35	73 22	72 08	70 55	69 40	68 26	67 10	65 55	64 39	4	50
4	10	77 26	76 16	75 06	73 56	72 45	71 34	70 21	69 09	67 57	66 44	65 31	64 18	5	00
4	20	76 40	75 32	74 24	73 15	72 06	70 57	69 47	68 37	67 27	66 16	65 05	63 54	5	10
4	30	75 53	74 47	73 41	72 34	71 26	70 19	69 11	68 03	66 55	65 45	64 37	63 27	5	20
4	40	75 06	74 00	72 56	71 51	70 46	69 40	68 34	67 28	66 21	65 14	64 06	62 58	5	30
4	50	74 17	73 14	72 11	71 07	70 03	69 00	67 55	66 50	65 44	64 39	63 33	62 27	5	40
5	00	73 28	72 26	71 25	70 22	69 19	68 17	67 14	66 10	65 06	64 03	62 59	61 54	5	50
5	10	72 38	71 37	70 37	69 36	68 35	67 34	66 31	65 29	64 27	63 24	62 21	61 18	6	00
5	20	71 47	70 48	69 48	68 49	67 49	66 48	65 47	64 47	63 45	62 44	61 42	60 40	6	10
5	30	70 55	69 57	68 58	68 00	67 00	66 01	65 01	64 02	63 02	62 02	61 01	60 00	6	20
5	40	70 02	69 04	68 07	67 09	66 12	65 14	64 15	63 16	62 17	61 17	60 19	59 19	6	30
5	50	69 07	68 11	67 14	66 17	65 21	64 23	63 25	62 28	61 29	60 32	59 33	58 35	6	40
6	00	68 11	67 15	66 20	65 23	64 28	63 32	62 34	61 38	60 41	59 43	58 47	57 49	6	50
6	10	67 13	66 19	65 24	64 29	63 33	62 37	61 41	60 46	59 49	58 54	57 57	57 01	7	00
6	20	66 15	65 20	64 26	63 31	62 37	61 42	60 46	59 52	58 57	58 01	57 06	56 11	7	10
6	30	65 14	64 20	63 27	62 33	61 39	60 45	59 50	58 56	58 02	57 08	56 13	55 18	7	20
6	40	64 12	63 17	62 25	61 32	60 38	59 45	58 51	57 58	57 04	56 11	55 17	54 23	7	30
6	50	63 07	62 15	61 22	60 29	59 36	58 44	57 51	56 58	56 05	55 12	54 19	53 26	7	40
7	00	62 00	61 08	60 16	59 23	58 31	57 39	56 47	55 55	55 03	54 11	53 19	52 26	7	50
7	10	60 51	59 59	59 08	58 16	57 25	56 34	55 41	54 50	53 58	53 07	52 15	51 24	8	00
7	20	59 39	58 48	57 57	57 07	56 15	55 24	54 33	53 43	52 52	52 01	51 10	50 20	8	10
7	30	58 25	57 34	56 44	55 54	55 03	54 13	53 22	52 33	51 43	50 53	50 02	49 13	8	20
7	40	57 08	56 18	55 28	54 39	53 48	52 59	52 09	51 19	50 30	49 41	48 52	48 03	8	30
7	50	55 49	54 59	54 10	53 21	52 31	51 42	50 53	50 04	49 15	48 28	47 39	46 50	8	40
8	00	54 25	53 36	52 47	51 59	51 10	50 21	49 34	48 45	47 57	47 10	46 22	45 35	8	50
8	10	52 59	52 11	51 23	50 35	49 46	48 59	48 12	47 24	46 37	45 51	45 03	44 17	9	00
8	20	51 30	50 42	49 54	49 07	48 19	47 32	46 45	45 58	45 13	44 28	43 41	42 55	9	10
8	30	49 57	49 09	48 22	47 35	46 49	46 03	45 16	44 31	43 46	43 01	42 15	41 31	9	20
8	40	48 20	47 33	46 46	46 00	45 15	44 30	43 44	42 59	42 15	41 31	40 47	40 03	9	30
8	50	46 38	45 53	45 07	44 21	43 36	42 52	42 08	41 24	40 40	39 58	39 15	38 32	9	40
9	00	44 52	44 08	43 23	42 38	41 54	41 11	40 28	39 45	39 03	38 21	37 39	36 58	9	50
9	10	43 03	42 18	41 35	40 51	40 09	39 27	38 44	38 03	37 22	36 41	36 00	35 20	10	00
9	20	41 08	40 25	39 42	39 01	38 19	37 38	36 57	36 17	35 37	34 57	34 18	33 39	10	10
9	30	39 08	38 26	37 45	37 05	36 24	35 44	35 05	34 26	33 48	33 10	32 32	31 56	10	20
9	40	37 04	36 23	35 44	35 04	34 25	33 47	33 09	32 32	31 55	31 19	30 42	30 07	10	30
9	50	34 55	34 16	33 37	32 59	32 22	31 45	31 09	30 34	29 59	29 25	28 50	28 17	10	40
10	00	32 41	32 03	31 26	30 50	30 15	29 40	29 06	28 32	27 59	27 26	26 54	26 22	10	50
10	10	30 20	29 45	29 10	28 36	28 02	27 30	26 58	26 25	25 55	25 34	24 53	24 24	11	00
10	20	27 56	27 22	26 50	26 18	25 47	25 16	24 46	24 16	23 47	23 19	22 51	22 23	11	10
10	30	25 25	24 55	24 25	23 55	23 27	22 58	22 30	22 03	21 36	21 10	20 44	20 19	11	20
10	40	22 51	22 22	21 55	21 28	21 01	20 36	20 10	19 46	19 21	18 58	18 34	18 11	11	30
10	50	20 11	19 45	19 21	18 57	18 34	18 10	17 47	17 26	17 03	16 43	16 21	16 01	11	40
11	00	17 27	17 05	16 43	16 22	16 01	15 42	15 21	15 03	14 43	14 25	14 07	13 49	11	50
11	10	14 39	14 20	14 02	13 44	13 27	13 09	12 52	12 36	12 21	12 05	11 49	11 34	12	00
11	20	11 48	11 32	11 17	11 03	10 48	10 35	10 21	10 08	9 55	9 43	9 30	9 18	12	10
11	30	8 53	8 41	8 30	8 19	8 09	7 58	7 48	7 38	7 28	7 18	7 09	6 59	12	20
11	40	5 57	5 49	5 41	5 33	5 27	5 20	5 13	5 06	4 59	4 52	4 47	4 40	12	30
11	50	2 59	2 55	2 51	2 47	2 43	2 40	2 37	2 33	2 29	2 27	2 24	2 20	12	40
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	50

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 26°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 26°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	2 16	2 07	1 59	1 53	1 47	1 41	1 34	1 29	1 24	1 19	1 14	10
	20	4 27	4 13	3 58	3 45	3 33	3 21	3 09	2 55	2 43	2 37	2 28	20
	30	6 38	6 17	5 57	5 37	5 18	5 00	4 43	4 26	4 11	3 55	3 41	30
	40	8 47	8 18	7 52	7 26	7 01	6 38	6 15	5 54	5 32	5 12	4 52	40
	50	10 51	10 17	9 44	9 12	8 42	8 13	7 45	7 18	6 52	6 27	6 03	50
1	00	12 52	12 11	11 32	10 56	10 20	9 46	9 13	8 41	8 11	7 44	7 13	1
	10	14 47	14 02	13 18	12 36	11 55	11 16	10 39	10 02	9 25	8 53	8 20	10
	20	16 38	15 48	14 59	14 12	13 26	12 43	12 01	11 20	10 41	10 03	9 26	20
	30	18 23	17 28	16 35	15 43	14 54	14 06	13 20	12 35	11 53	11 11	10 30	30
	40	20 02	19 03	18 06	17 11	16 18	15 27	14 37	13 48	13 02	12 16	11 31	40
	50	21 34	20 32	19 32	18 33	17 37	16 43	15 49	14 57	14 07	13 19	12 30	50
2	00	23 01	21 56	20 53	19 52	18 52	17 54	16 57	16 04	15 10	14 18	13 28	2
	10	24 21	23 14	22 09	21 05	20 02	19 02	18 02	17 05	16 09	15 15	14 21	10
	20	25 36	24 27	23 19	22 12	21 08	20 05	19 04	18 04	17 06	16 08	15 12	20
	30	26 43	25 33	24 23	23 16	22 09	21 05	20 01	18 59	17 59	16 59	16 01	30
	40	27 46	26 34	25 24	24 14	23 06	22 00	21 54	19 50	18 45	17 47	16 46	40
	50	28 43	27 29	26 18	25 07	23 58	22 50	21 43	20 38	19 34	18 31	17 28	50
3	00	29 34	28 20	27 07	25 56	24 46	23 37	22 28	21 22	20 17	19 12	18 08	3
	10	30 20	29 08	27 53	26 40	25 29	24 19	23 10	22 03	20 56	19 50	18 44	10
	20	31 00	29 46	28 32	27 20	26 06	24 58	23 48	22 40	21 31	20 24	19 17	20
	30	31 35	30 21	29 08	27 55	26 43	25 32	24 22	23 13	22 04	20 55	19 48	30
	40	32 07	30 52	29 39	28 26	27 15	26 03	24 52	23 42	22 33	21 24	20 16	40
	50	32 33	31 20	30 07	28 54	27 41	26 30	25 19	24 09	22 59	21 49	20 41	50
4	00	32 55	31 42	30 29	29 17	28 05	26 53	25 41	24 32	23 22	22 12	21 03	4
	10	33 14	32 01	30 49	29 36	28 24	27 13	26 02	24 52	23 42	22 31	21 22	10
	20	33 28	32 15	31 03	29 51	28 41	27 29	26 18	25 07	23 58	22 48	21 38	20
	30	33 38	32 26	31 15	30 04	28 53	27 42	26 31	25 21	24 11	23 02	21 52	30
	40	33 45	32 34	31 23	30 12	29 02	27 52	26 41	25 32	24 23	23 13	22 03	40
	50	33 48	32 38	31 28	30 18	29 09	27 59	26 49	25 40	24 30	23 21	22 12	50
5	00	33 48	32 39	31 30	30 20	29 11	28 03	26 53	25 44	24 36	23 26	22 17	5
	10	33 44	32 36	31 28	30 19	29 12	28 03	26 54	25 46	24 38	23 30	22 21	10
	20	33 38	32 31	31 23	30 16	29 09	28 00	26 54	25 45	24 38	23 30	22 22	20
	30	33 29	32 22	31 15	30 09	29 02	27 56	26 48	25 42	24 35	23 28	22 21	30
	40	33 16	32 11	31 05	29 59	28 55	27 49	26 42	25 36	24 30	23 24	22 17	40
	50	33 01	31 57	30 52	29 47	28 43	27 38	26 33	25 28	24 22	23 16	22 11	50
6	00	32 43	31 40	30 36	29 33	28 30	27 25	26 21	25 17	24 13	23 08	22 02	6
	10	32 23	31 21	30 18	29 16	28 13	27 10	26 07	25 03	24 00	22 56	21 53	10
	20	32 00	30 59	29 58	28 56	27 54	26 52	25 50	24 48	23 46	22 43	21 40	20
	30	31 34	30 34	29 34	28 34	27 34	26 33	25 31	24 30	23 28	22 27	21 26	30
	40	31 05	30 07	29 08	28 09	27 10	26 10	25 10	24 11	23 11	22 10	21 09	40
	50	30 36	29 38	28 41	27 43	26 44	25 46	24 47	23 48	22 50	21 50	20 50	50
7	00	30 03	29 06	28 10	27 13	26 17	25 20	24 22	23 24	22 27	21 29	20 30	7
	10	29 27	28 33	27 37	26 42	25 47	24 51	23 55	22 59	22 03	21 06	20 08	10
	20	28 50	27 57	27 03	26 09	25 15	24 21	23 26	22 31	21 36	20 40	19 44	20
	30	28 11	27 19	26 26	25 34	24 41	23 48	22 54	22 00	21 07	20 13	19 18	30
	40	27 29	26 39	25 48	24 56	24 05	23 13	22 21	21 29	20 37	19 44	18 51	40
	50	26 46	25 56	25 06	24 16	23 27	22 37	21 46	20 56	20 05	19 14	18 22	50
8	00	25 59	25 12	24 23	23 36	22 47	21 59	21 09	20 20	19 32	18 43	17 51	8
	10	25 12	24 25	23 39	22 52	22 05	21 18	20 31	19 43	18 56	18 07	17 19	10
	20	24 23	23 37	22 53	22 08	21 22	20 37	19 50	19 05	18 19	17 32	16 45	20
	30	23 31	22 48	22 04	21 20	20 37	19 53	19 08	18 24	17 40	16 55	16 10	30
	40	22 37	21 56	21 13	20 32	19 50	19 08	18 25	17 42	17 00	16 17	15 34	40
	50	21 41	21 02	20 22	19 41	19 01	18 21	17 39	16 59	16 19	15 37	14 56	50
9	00	20 45	20 07	19 28	18 49	18 11	17 33	16 53	16 14	15 35	14 56	14 17	9
	10	19 46	19 10	18 33	17 56	17 19	16 43	16 06	15 29	14 51	14 13	13 36	10
	20	18 45	18 11	17 36	17 01	16 26	15 51	15 16	14 41	14 05	13 30	12 55	20
	30	17 43	17 10	16 38	16 05	15 32	14 59	14 26	13 52	13 19	12 46	12 11	30
	40	16 40	16 09	15 38	15 07	14 36	14 05	13 34	13 02	12 32	12 00	11 27	40
	50	15 35	15 06	14 37	14 07	13 39	13 10	12 41	12 12	11 43	11 13	10 43	50
10	00	14 29	14 02	13 35	13 08	12 41	12 14	11 46	11 19	10 52	10 25	9 57	10
	10	13 21	12 57	12 31	12 06	11 41	11 16	10 51	10 26	10 01	9 36	9 11	10
	20	12 12	11 50	11 27	11 04	10 41	10 18	9 55	9 33	9 09	8 47	8 23	20
	30	11 02	10 42	10 21	10 01	9 40	9 19	8 58	8 37	8 17	7 56	7 35	30
	40	9 51	9 33	9 14	8 56	8 38	8 19	8 00	7 42	7 23	7 05	6 46	40
	50	8 40	8 23	8 07	7 51	7 35	7 18	7 02	6 45	6 30	6 14	5 56	50
11	00	7 26	7 13	6 59	6 45	6 31	6 17	6 02	5 49	5 35	5 21	5 07	11
	10	6 14	6 02	5 50	5 39	5 27	5 15	5 03	4 52	4 40	4 28	4 16	10
	20	5 00	4 50	4 41	4 31	4 22	4 13	4 03	3 54	3 44	3 35	3 26	20
	30	3 45	3 38	3 31	3 24	3 17	3 10	3 03	2 55	2 49	2 42	2 35	30
	40	2 30	2 26	2 21	2 16	2 11	2 07	2 02	1 58	1 52	1 48	1 43	40
	50	1 15	1 13	1 11	1 08	1 05	1 03	1 01	0 59	0 57	0 54	0 52	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 27°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 27°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.													h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
0	10	142 30	131 07	113 31	89 26	65 09	47 15	35 38	28 04	22 55	19 13	16 29	14 22	1	00
0	20	122 31	112 53	101 28	88 52	76 09	64 28	54 30	46 22	39 50	34 36	30 22	26 56	1	10
0	30	112 15	104 51	96 45	88 18	79 44	71 27	63 46	56 51	50 45	45 26	40 51	36 55	1	20
0	40	106 11	100 18	94 07	87 44	81 16	74 55	68 49	63 03	57 44	52 51	48 27	44 30	1	30
0	50	102 08	97 18	92 17	87 09	81 58	76 49	71 47	66 56	62 20	57 59	53 53	50 09	1	40
1	00	99 10	95 05	90 52	86 35	82 15	77 36	73 39	69 29	65 26	61 34	57 52	54 24	1	50
1	10	96 52	93 19	89 41	86 00	82 17	78 33	74 51	71 12	67 38	64 10	60 48	57 35	2	00
1	20	95 00	91 52	88 40	85 25	82 09	78 52	75 36	72 22	69 10	66 02	62 59	60 02	2	10
1	30	93 24	90 36	87 44	84 50	81 55	78 59	76 04	73 09	70 16	67 25	64 37	61 53	2	20
1	40	92 00	89 77	86 52	84 15	81 37	78 57	76 19	73 40	71 02	68 25	65 51	63 19	2	30
1	50	90 45	88 25	86 03	83 40	81 15	78 50	76 24	73 58	71 32	69 08	66 45	64 24	2	40
2	00	89 36	87 27	85 16	83 04	80 51	78 37	76 22	74 08	71 53	69 38	67 25	65 13	2	50
2	10	88 32	86 32	84 30	82 28	80 24	78 19	76 15	74 09	72 05	69 59	67 54	65 51	3	00
2	20	87 31	85 39	83 46	81 51	79 56	78 00	76 03	74 05	72 08	70 11	68 13	66 17	3	10
2	30	86 34	84 46	82 52	81 01	79 26	77 37	75 47	73 57	72 06	70 15	68 25	66 35	3	20
2	40	85 38	83 59	82 19	80 34	78 55	77 11	75 28	73 44	72 00	70 14	68 30	66 45	3	30
2	50	84 46	83 11	81 35	79 59	78 22	76 44	75 06	73 27	71 48	70 09	68 29	66 50	3	40
3	00	83 53	82 23	80 53	79 21	77 48	76 16	74 42	73 05	71 34	69 59	68 24	66 49	3	50
3	10	83 02	81 37	80 10	78 42	77 11	75 46	74 16	72 46	71 10	69 45	68 14	66 43	4	00
3	20	82 13	80 50	79 27	78 03	76 38	75 13	73 48	72 22	70 55	69 28	68 02	66 34	4	10
3	30	81 23	80 03	78 43	77 23	76 01	74 40	73 18	71 55	70 32	69 09	67 44	66 21	4	20
3	40	80 33	79 17	77 59	76 42	75 24	74 06	72 47	71 27	70 07	68 46	67 25	66 04	4	30
3	50	79 44	78 30	77 16	76 01	74 45	73 29	72 13	70 56	69 39	68 21	67 03	65 45	4	40
4	00	78 55	77 43	76 31	75 19	74 05	72 52	71 39	70 21	69 09	67 54	66 38	65 23	4	50
4	10	78 08	76 56	75 46	74 36	73 25	72 14	71 02	69 50	68 38	67 25	66 11	64 55	5	00
4	20	77 16	76 09	75 01	73 52	72 43	71 34	70 24	69 14	68 04	66 53	65 42	64 31	5	10
4	30	76 26	75 20	74 14	73 08	72 00	70 53	69 48	68 37	67 29	66 20	65 11	64 01	5	20
4	40	75 35	74 31	73 27	72 22	71 17	70 11	69 08	67 59	66 52	65 45	64 37	63 30	5	30
4	50	74 45	73 41	72 39	71 36	70 32	69 27	68 23	67 18	66 13	65 07	64 02	62 56	5	40
5	00	73 53	72 51	71 50	70 48	69 45	68 42	67 40	66 36	65 33	64 29	63 24	62 20	5	50
5	10	73 00	72 00	71 00	69 59	68 58	67 56	66 54	65 52	64 51	63 49	62 45	61 42	6	00
5	20	72 07	71 08	70 09	69 09	68 08	67 07	66 06	65 05	64 07	63 06	62 04	61 03	6	10
5	30	71 13	70 14	69 16	68 18	67 18	66 20	65 20	64 21	63 22	62 21	61 21	60 20	6	20
5	40	70 17	69 20	68 23	67 25	66 27	65 29	64 30	63 32	62 34	61 35	60 36	59 37	6	30
5	50	69 20	68 24	67 27	66 31	65 34	64 37	63 40	62 42	61 45	60 47	59 49	58 50	6	40
6	00	68 22	67 27	66 31	65 35	64 39	63 43	62 47	61 50	60 51	59 57	59 00	58 03	6	50
6	10	67 23	66 27	65 32	64 35	63 43	62 47	61 52	60 56	60 00	59 04	58 08	57 12	7	00
6	20	66 21	65 27	64 33	63 39	62 45	61 50	60 55	60 00	59 06	58 11	57 15	56 20	7	10
6	30	65 20	64 25	63 31	62 38	61 44	60 50	59 57	59 03	58 09	57 15	56 21	55 26	7	20
6	40	64 14	63 21	62 28	61 35	60 42	59 49	58 56	58 03	57 10	56 16	55 23	54 30	7	30
6	50	63 07	62 15	61 23	60 30	59 38	58 45	57 53	57 01	56 09	55 16	54 24	53 31	7	40
7	00	61 59	61 07	60 15	59 24	58 32	57 40	56 48	55 57	55 05	54 13	53 21	52 30	7	50
7	10	60 47	59 56	59 06	58 14	57 23	56 32	55 41	54 49	53 59	53 08	52 17	51 26	8	00
7	20	59 34	58 44	57 53	57 03	56 12	55 21	54 31	53 41	52 51	52 01	51 11	50 20	8	10
7	30	58 19	57 29	56 39	55 49	54 58	54 08	53 20	52 29	51 40	50 50	50 02	49 11	8	20
7	40	57 01	56 11	55 21	54 31	53 42	52 53	52 05	51 16	50 27	49 38	48 49	48 01	8	30
7	50	55 38	54 50	54 01	53 12	52 23	51 35	50 47	49 59	49 10	48 22	47 34	46 47	8	40
8	00	54 14	53 26	52 37	51 49	51 01	50 14	49 26	48 38	47 52	47 04	46 16	45 31	8	50
8	10	52 47	51 59	51 11	50 24	49 36	48 49	48 03	47 16	46 29	45 43	44 56	44 11	9	00
8	20	51 16	50 29	49 41	48 55	48 08	47 22	46 36	45 50	45 04	44 19	43 33	42 48	9	10
8	30	49 41	48 55	48 09	47 22	46 36	45 50	45 06	44 20	43 36	42 52	42 07	41 23	9	20
8	40	48 04	47 17	46 32	45 46	45 01	44 16	43 32	42 48	42 05	41 21	40 37	39 53	9	30
8	50	46 21	45 35	44 51	44 07	43 22	42 38	41 55	41 12	40 30	39 48	39 05	38 23	9	40
9	00	44 34	43 50	43 06	42 23	41 40	40 57	40 15	39 32	38 52	38 10	37 29	36 48	9	50
9	10	42 44	42 00	41 17	40 35	39 53	39 12	38 30	37 50	37 10	36 29	35 49	35 10	10	00
9	20	40 48	40 06	39 25	38 44	38 03	37 22	36 43	36 03	35 24	34 45	34 07	33 29	10	10
9	30	38 49	38 08	37 27	36 47	36 08	35 29	34 50	34 12	33 36	32 58	32 21	31 45	10	20
9	40	36 44	36 04	35 26	34 47	34 09	33 31	32 55	32 19	31 43	31 07	30 31	29 57	10	30
9	50	34 35	33 56	33 19	32 42	32 06	31 30	30 55	30 20	29 46	29 11	28 38	28 05	10	40
10	00	32 21	31 44	31 08	30 33	29 59	29 25	28 52	28 18	27 46	27 13	26 42	26 11	10	50
10	10	30 00	29 26	28 53	28 20	27 47	27 14	26 43	26 12	25 42	25 12	24 42	24 12	11	00
10	20	27 37	27 05	26 32	26 02	25 32	25 02	24 32	24 04	23 35	23 07	22 39	22 12	11	10
10	30	25 08	24 37	24 09	23 40	23 11	22 44	22 18	21 51	21 25	20 59	20 34	20 08	11	20
10	40	22 34	22 06	21 40	21 14	20 48	20 23	19 58	19 34	19 11	18 47	18 24	18 02	11	30
10	50	19 55	19 31	19 07	18 44	18 21	17 59	17 36	17 15	16 55	16 33	16 13	15 53	11	40
11	00	17 13	16 52	16 30	16 10	15 51	15 31	15 11	14 53	14 34	14 17	13 59	13 41	11	50
11	10	14 27	14 08	13 52	13 34	13 17	13 01	12 44	12 25	12 13	11 57	11 42	11 28	12	00
11	20	11 38	11 23	11 09	10 55	10 41	10 27	10 14	10 01	9 49	9 37	9 25	9 13	12	10
11	30	8 46	8 34	8 23	8 13	8 03	7 53	7 42	7 33	7 24	7 13	7 05	6 56	12	20
11	40	5 51	5 44	5 37	5 30	5 22	5 16	5 10	5 03	4 56	4 50	4 43	4 38	12	30
11	50	2 56	2 53	2 49	2 45	2 41	2 38	2 35	2 32	2 28	2 25	2 22	2 19	12	40
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	50

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 27°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 27°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.													h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	12 42	11 19	10 11	9 15	8 26	7 45	7 08	6 36	6 07	5 41	5 19	4 58	1	00
	20	24 05	21 41	19 40	17 56	16 27	15 09	13 59	12 58	12 03	11 15	10 30	9 49		10
	30	33 30	30 32	27 56	25 41	23 43	21 55	20 20	18 56	17 39	16 30	15 26	14 28		20
	40	40 56	37 45	34 53	32 19	30 01	27 57	26 03	24 21	22 48	21 22	20 04	18 51		30
	50	46 41	43 29	40 33	37 53	35 25	33 09	31 05	29 10	27 25	25 48	24 18	22 54		40
1	00	51 06	48 01	45 08	42 27	39 56	37 37	35 26	33 24	31 32	29 46	28 08	26 35	1	50
	10	54 31	51 35	48 48	46 11	43 42	41 22	39 10	37 04	35 07	33 18	31 34	29 55		00
	20	57 10	54 24	51 46	49 14	46 48	44 31	42 19	40 14	38 15	36 23	34 35	32 53		10
	30	59 14	56 39	54 08	51 43	49 23	47 08	44 59	42 56	40 57	39 04	37 16	35 31		20
	40	60 50	58 24	56 03	53 45	51 30	49 20	47 15	45 13	43 16	41 24	39 35	37 50		30
	50	62 06	59 48	57 34	55 23	53 14	51 09	49 08	47 09	45 14	43 24	41 36	39 52		40
2	00	63 03	60 54	58 47	56 43	54 40	52 40	50 43	48 49	46 56	45 08	43 22	41 38	2	00
	10	63 48	61 46	59 46	57 47	55 49	53 54	52 02	50 11	48 22	46 37	44 52	43 10		10
	20	64 21	62 26	60 32	58 38	56 46	54 56	53 07	51 20	49 35	47 51	46 10	44 30		20
	30	64 45	62 55	61 06	59 18	57 31	55 45	53 61	51 78	49 95	48 15	46 38	44 58		30
	40	65 01	63 16	61 33	59 50	58 07	56 26	54 44	53 05	51 26	49 49	48 12	46 37		40
	50	65 10	63 31	61 51	60 13	58 34	56 57	55 19	53 43	52 06	50 32	48 58	47 25		50
3	00	65 14	63 39	62 03	60 28	58 54	57 20	55 46	54 13	52 40	51 08	49 36	48 06	3	00
	10	65 12	63 42	62 10	60 38	59 07	57 37	56 06	54 35	53 06	51 36	50 07	48 39		10
	20	65 06	63 38	62 10	60 42	59 15	57 47	56 10	54 52	53 25	51 58	50 31	49 06		20
	30	64 56	63 32	62 07	60 42	59 17	57 52	56 26	55 03	53 38	52 15	50 50	49 26		30
	40	64 43	63 21	61 59	60 37	59 15	57 53	56 31	55 09	53 47	52 25	51 03	49 41		40
	50	64 26	63 07	61 48	60 29	59 09	57 49	56 30	55 10	53 50	52 30	51 10	49 51		50
4	00	64 07	62 50	61 34	60 16	58 59	57 42	56 25	55 07	53 49	52 31	51 13	49 56	4	00
	10	63 44	62 29	61 16	60 01	58 45	57 30	56 15	55 00	53 44	52 29	51 13	49 56		10
	20	63 19	62 07	60 54	59 42	58 29	57 15	56 02	54 49	53 35	52 21	51 07	49 53		20
	30	62 52	61 41	60 31	59 20	58 09	56 58	55 47	54 35	53 23	52 11	50 58	49 45		30
	40	62 22	61 13	60 05	58 55	57 47	56 37	55 27	54 18	53 07	51 57	50 45	49 35		40
	50	61 50	60 43	59 36	58 28	57 21	56 13	55 06	53 57	52 48	51 40	50 30	49 21		50
5	00	61 16	60 10	59 04	57 58	56 53	55 46	54 40	53 33	52 26	51 18	50 11	49 04	5	00
	10	60 39	59 35	58 31	57 26	56 22	55 17	54 12	53 07	52 01	50 55	49 49	48 42		10
	20	60 01	58 58	57 55	56 52	55 50	54 46	53 43	52 38	51 33	50 29	49 24	48 19		20
	30	59 20	58 18	57 17	56 16	55 13	54 11	53 09	52 06	51 03	50 00	48 56	47 53		30
	40	58 37	57 37	56 37	55 36	54 35	53 35	52 34	51 33	50 31	49 29	48 26	47 24		40
	50	57 53	56 53	55 55	54 55	53 56	52 56	51 56	50 56	49 56	48 55	47 54	46 53		50
6	00	57 05	56 07	55 09	54 12	53 13	52 14	51 16	50 16	49 18	48 18	47 18	46 18	6	00
	10	56 16	55 19	54 22	53 25	52 28	51 30	50 33	49 35	48 36	47 39	46 40	45 41		10
	20	55 25	54 29	53 33	52 37	51 41	50 45	49 49	48 51	47 54	46 57	46 00	45 02		20
	30	54 31	53 37	52 41	51 47	50 52	49 56	49 01	48 06	47 09	46 13	45 17	44 20		30
	40	53 36	52 42	51 48	50 54	50 00	49 05	48 11	47 16	46 21	45 26	44 32	43 36		40
	50	52 38	51 45	50 52	49 59	49 06	48 12	47 19	46 25	45 32	44 38	43 44	42 49		50
7	00	51 38	50 45	49 54	49 01	48 09	47 17	46 24	45 31	44 38	43 46	42 53	42 00	7	00
	10	50 34	49 43	48 53	48 02	47 10	46 19	45 28	44 36	43 44	42 52	42 01	41 07		10
	20	49 30	48 39	47 49	46 59	46 08	45 18	44 27	43 37	42 46	41 55	41 05	40 14		20
	30	48 22	47 32	46 43	45 54	45 05	44 15	43 26	42 36	41 46	40 57	40 07	39 17		30
	40	47 12	46 23	45 36	44 47	43 58	43 10	42 21	41 33	40 44	39 55	39 07	38 19		40
	50	45 59	45 12	44 24	43 36	42 49	42 02	41 15	40 27	39 40	38 52	38 05	37 17		50
8	00	44 44	43 56	43 10	42 24	41 37	40 51	40 05	39 18	38 32	37 46	36 59	36 13	8	00
	10	43 26	42 39	41 54	41 08	40 23	39 37	38 53	38 07	37 22	36 37	35 52	35 07		10
	20	42 04	41 19	40 35	39 50	39 05	38 21	37 38	36 54	36 09	35 25	34 42	33 58		20
	30	40 40	39 56	39 13	38 29	37 46	37 03	36 20	35 38	34 55	34 12	33 29	32 47		30
	40	39 13	38 29	37 48	37 05	36 24	35 42	35 00	34 18	33 37	32 56	32 15	31 34		40
	50	37 42	37 01	36 19	35 39	34 58	34 18	33 38	32 57	32 17	31 37	30 57	30 17		50
9	00	36 08	35 28	34 48	34 09	33 29	32 50	32 12	31 32	30 54	30 15	29 37	28 59	9	00
	10	34 32	33 53	33 14	32 37	31 59	31 21	30 44	30 06	29 29	28 52	28 15	27 38		10
	20	32 52	32 14	31 36	31 01	30 24	29 48	29 12	28 37	28 01	27 25	26 50	26 15		20
	30	31 09	30 33	30 57	30 23	29 48	29 13	28 38	28 05	27 30	26 55	26 20	25 45		30
	40	29 22	28 48	28 14	27 41	27 08	26 35	26 02	25 30	24 57	24 26	23 54	23 22		40
	50	27 33	27 00	26 28	25 57	25 25	24 54	24 23	23 53	23 22	22 52	22 22	21 52		50
10	00	25 40	25 09	24 39	24 09	23 40	23 11	22 42	22 14	21 45	21 17	20 48	20 21	10	00
	10	23 45	23 16	22 47	22 20	21 53	21 26	20 58	20 31	20 04	19 38	19 12	18 46		10
	20	21 49	21 20	20 53	20 28	20 02	19 37	19 12	18 48	18 23	17 59	17 35	17 11		20
	30	19 44	19 20	18 56	18 33	18 09	17 47	17 24	17 01	16 39	16 17	15 55	15 33		30
	40	17 40	17 18	16 56	16 35	16 15	15 54	15 33	15 13	14 53	14 33	14 14	13 54		40
	50	15 33	15 14	14 55	14 36	14 17	13 59	13 41	13 23	13 05	12 48	12 30	12 13		50
11	00	13 24	13 08	12 51	12 35	12 19	12 02	11 47	11 31	11 16	11 01	10 46	10 31	11	00
	10	11 13	10 59	10 45	10 32	10 18	10 05	9 51	9 39	9 26	9 13	8 59	8 46		10
	20	9 01	8 48	8 38	8 27	8 16	8 06	7 55	7 44	7 34	7 24	7 13	7 04		20
	30	6 47	6 36	6 29	6 21	6 13	6 05	5 57	5 49	5 41	5 33	5 26	5 18		30
	40	4 34	4 27	4 20	4 14	4 10	4 04	3 58	3 53	3 47	3 41	3 33	3 27		40
	50	2 16	2 13	2 10	2 08	2 05	2 02	1 59	1 56	1 54	1 52	1 49	1 47		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 27°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 27°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	4 39	4 22	4 06	3 52	3 38	3 25	3 14	3 03	2 53	2 43	2 34	2 26		10
	20	9 13	8 39	8 06	7 40	7 13	6 48	6 26	6 04	5 44	5 25	5 07	4 51		20
	30	13 37	12 48	12 02	11 21	10 42	10 06	9 33	9 01	8 32	8 03	7 37	7 12		30
	40	17 45	16 44	15 46	14 53	14 04	13 18	12 34	11 53	11 14	10 38	10 03	9 31		40
	50	21 37	20 24	19 17	18 14	17 15	16 19	15 27	14 38	13 51	13 07	12 26	11 45		50
1	00	25 09	23 49	22 32	21 22	20 15	19 11	18 11	17 15	16 21	15 29	14 41	13 55	1	00
	10	28 23	26 55	25 33	24 16	23 01	21 52	20 45	19 43	18 42	17 46	16 51	15 59		10
	20	31 17	29 45	28 18	26 55	25 36	24 21	23 09	22 01	20 56	19 53	18 53	17 56		20
	30	33 53	32 17	30 47	29 20	27 58	26 38	25 23	24 09	23 00	21 53	20 49	19 48		30
	40	36 10	34 34	33 01	31 32	30 07	28 44	27 25	26 08	24 55	23 45	22 37	21 32		40
	50	38 12	36 35	35 00	33 30	32 03	30 38	29 16	27 57	26 41	25 28	24 17	23 09		50
2	00	39 59	38 22	36 47	35 16	33 48	32 21	30 58	29 38	28 19	27 04	25 50	24 39	2	00
	10	41 32	39 55	38 21	36 50	35 21	33 54	32 30	31 08	29 48	28 31	27 15	26 02		10
	20	44 03	41 17	39 44	38 13	36 45	35 17	33 53	32 30	31 09	29 50	28 33	27 18		20
	30	46 53	42 29	40 57	39 26	37 58	36 31	35 06	33 43	32 22	31 02	29 44	28 28		30
	40	49 03	44 30	41 59	40 30	39 03	37 36	36 11	34 48	33 26	32 07	30 48	29 31		40
	50	45 54	44 23	42 54	41 25	39 59	38 34	37 09	35 46	34 25	33 04	31 46	30 28		50
3	00	46 37	45 07	43 40	42 13	40 48	39 23	37 59	36 37	35 16	33 56	32 36	31 19	3	00
	10	47 12	45 45	44 19	42 53	41 29	40 06	38 43	37 22	36 01	34 42	33 22	32 05		10
	20	47 41	46 15	44 51	43 27	42 04	40 42	39 20	38 00	36 40	35 21	34 02	32 44		20
	30	48 03	46 40	45 17	43 55	42 33	41 13	39 52	38 33	37 13	35 54	34 37	33 20		30
	40	48 20	46 58	45 37	44 17	42 57	41 38	40 18	39 00	37 41	36 23	35 06	33 50		40
	50	48 31	47 12	45 52	44 33	43 15	41 57	40 39	39 21	38 04	36 47	35 31	34 15		50
4	00	48 38	47 21	46 03	44 45	43 28	42 11	40 55	39 39	38 22	37 06	35 51	34 35	4	00
	10	48 41	47 25	46 09	44 53	43 38	42 22	41 06	39 50	38 35	37 22	36 06	34 52		10
	20	48 40	47 24	46 10	44 56	43 42	42 27	41 13	39 59	38 45	37 31	36 18	35 04		20
	30	48 34	47 21	46 08	44 55	43 43	42 30	41 16	40 03	38 50	37 38	36 25	35 13		30
	40	48 24	47 13	46 01	44 50	43 39	42 27	41 15	40 04	38 53	37 40	36 29	35 17		40
	50	48 11	47 01	45 52	44 42	43 32	42 21	41 12	40 01	38 50	37 39	36 29	35 19		50
5	00	47 56	46 47	45 39	44 30	43 21	42 13	41 04	39 55	38 45	37 35	36 26	35 17	5	00
	10	47 37	46 30	45 22	44 15	43 08	42 00	40 52	39 45	38 36	37 28	36 20	35 11		10
	20	47 15	46 09	45 03	43 57	42 51	41 45	40 38	39 32	38 25	37 18	36 10	35 03		20
	30	46 50	45 45	44 41	43 36	42 32	41 26	40 20	39 15	38 09	37 04	35 58	34 51		30
	40	46 22	45 19	44 16	43 13	42 09	41 04	40 01	38 56	37 52	36 47	35 42	34 37		40
	50	45 51	44 49	43 48	42 45	41 43	40 41	39 38	38 34	37 31	36 27	35 23	34 20		50
6	00	45 18	44 17	43 17	42 16	41 15	40 13	39 12	38 10	37 07	36 05	35 02	33 59	6	00
	10	44 43	43 43	42 44	41 44	40 44	39 43	38 43	37 42	36 41	35 40	34 39	33 37		10
	20	44 05	43 06	42 07	41 09	40 10	39 11	38 12	37 13	36 13	35 13	34 12	33 12		20
	30	43 24	42 27	41 29	40 32	39 35	38 37	37 39	36 40	35 42	34 43	33 44	32 44		30
	40	42 41	41 44	40 48	39 54	38 55	37 59	37 02	36 05	35 07	34 10	33 12	32 14		40
	50	41 54	41 00	40 05	39 10	38 15	37 19	36 23	35 27	34 31	33 35	32 39	31 41		50
7	00	41 06	40 12	39 19	38 25	37 31	36 37	35 43	34 48	33 53	32 57	32 02	31 06	7	00
	10	40 16	39 23	38 31	37 38	36 46	35 52	34 59	34 05	33 12	32 18	31 24	30 29		10
	20	39 23	38 32	37 40	36 48	35 57	35 05	34 13	33 21	32 29	31 36	30 44	29 50		20
	30	38 28	37 38	36 47	35 57	35 07	34 16	33 25	32 35	31 44	30 52	30 00	29 09		30
	40	37 30	36 41	35 52	35 03	34 14	33 24	32 35	31 45	30 56	30 05	29 16	28 25		40
	50	36 39	35 42	34 55	34 07	33 18	32 31	31 43	30 54	30 06	29 17	28 29	27 39		50
8	00	35 27	34 41	33 54	33 07	32 21	31 34	30 47	30 01	29 14	28 26	27 39	26 52	8	00
	10	34 22	33 37	32 52	32 06	31 21	30 36	29 50	29 05	28 19	27 34	26 48	26 02		10
	20	33 15	32 31	31 47	31 03	30 20	29 36	28 51	28 08	27 23	26 38	25 55	25 10		20
	30	32 05	31 22	30 40	29 57	29 14	28 33	27 50	27 08	26 24	25 42	24 59	24 16		30
	40	30 53	30 11	29 30	28 49	28 09	27 27	26 46	26 06	25 24	24 43	24 02	23 21		40
	50	29 39	28 58	28 19	27 39	27 00	26 20	25 41	25 02	24 22	23 42	23 03	22 23		50
9	00	28 21	27 42	27 05	26 27	25 49	25 11	24 33	23 56	23 18	22 40	22 02	21 24	9	00
	10	27 02	26 25	25 49	25 12	24 36	24 00	23 24	22 48	22 12	21 35	20 59	20 23		10
	20	25 40	25 06	24 31	23 56	23 22	22 47	22 12	21 39	21 04	20 30	19 55	19 20		20
	30	24 17	23 43	23 10	22 37	22 04	21 32	20 59	20 27	19 55	19 21	18 49	18 17		30
	40	22 52	22 19	21 48	21 17	20 46	20 15	19 45	19 14	18 43	18 12	17 42	17 10		40
	50	21 23	20 53	20 24	19 54	19 15	18 56	18 28	17 59	17 30	17 01	16 32	16 04		50
10	00	19 54	19 25	18 58	18 31	18 04	17 36	17 10	16 42	16 16	15 49	15 22	14 55	10	00
	10	18 21	17 56	17 30	17 04	16 39	16 14	15 49	15 25	14 59	14 35	14 10	13 46		10
	20	16 47	16 24	16 01	15 37	15 14	14 50	14 28	14 05	13 43	13 20	12 57	12 34		20
	30	15 12	14 51	14 29	14 08	13 47	13 26	13 05	12 45	12 24	12 03	11 43	11 23		30
	40	13 35	13 15	12 57	12 37	12 19	12 00	11 41	11 23	11 05	10 46	10 28	10 09		40
	50	11 57	11 39	11 22	11 06	10 50	10 33	10 17	10 01	9 43	9 25	9 08	8 55		50
11	00	10 16	10 01	9 48	9 33	9 19	9 04	8 50	8 36	8 22	8 08	7 54	7 41	11	00
	10	8 36	8 23	8 11	7 59	7 47	7 35	7 23	7 11	6 59	6 48	6 37	6 24		10
	20	6 54	6 44	6 34	6 25	6 15	6 05	5 55	5 45	5 36	5 27	5 18	5 09		20
	30	5 11	5 03	4 56	4 49	4 42	4 34	4 27	4 20	4 13	4 06	3 58	3 52		30
	40	3 28	3 23	3 18	3 13	3 08	3 03	2 58	2 54	2 49	2 44	2 40	2 34		40
	50	1 44	1 42	1 39	1 37	1 34	1 32	1 29	1 27	1 25	1 22	1 20	1 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 28°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 28°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0 /		0 /		0 /		0 /		0 /		0 /		0 /	
		0	00	0	00	0	00	0	00	0	00	0	00	0	00
0	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00
	10	14	11	12	32	11	11	10	03	9	07	8	19	5	35
	20	26	37	23	48	21	25	19	25	17	43	16	13	12	46
	30	36	33	33	09	30	11	27	36	25	21	23	22	21	37
	40	44	06	40	33	37	22	34	30	31	57	29	39	27	34
	50	49	45	46	16	43	04	40	08	37	26	35	00	32	45
1	00	54	00	50	42	47	36	44	41	42	00	39	30	37	09
	10	57	13	54	06	51	09	48	22	45	44	43	14	40	54
	20	59	38	56	45	53	59	51	19	48	46	46	21	44	02
	30	61	30	58	49	56	13	53	41	51	15	48	54	46	40
	40	62	56	60	25	57	58	55	36	53	17	51	01	48	50
	50	64	01	61	40	59	22	57	06	54	54	52	45	50	39
2	00	64	50	62	38	60	28	58	20	56	14	54	11	52	10
	10	65	26	63	22	61	20	59	18	57	18	55	20	53	24
	20	65	52	63	55	61	56	60	03	58	09	56	16	54	24
	30	66	10	64	19	62	28	60	38	58	50	57	01	55	14
	40	66	19	64	34	62	49	61	04	59	20	57	37	55	53
	50	66	23	64	43	63	02	61	22	59	42	58	03	56	24
3	00	66	21	64	46	63	09	61	33	59	57	58	22	56	47
	10	66	16	64	44	63	11	61	39	60	07	58	35	57	03
	20	66	05	64	37	63	08	61	39	60	10	58	42	57	13
	30	65	51	64	26	63	01	61	35	60	10	58	44	57	19
	40	65	33	64	12	62	50	61	27	60	04	58	41	57	18
	50	65	13	63	55	62	35	61	15	59	55	58	35	57	15
4	00	64	50	63	34	62	17	60	59	59	42	58	24	57	06
	10	64	25	63	10	61	56	60	40	59	25	58	10	56	55
	20	63	57	62	45	61	32	60	19	57	52	56	38	55	24
	30	63	26	62	16	61	06	59	54	58	43	57	32	56	20
	40	62	54	61	46	60	36	59	28	57	09	55	58	54	48
	50	62	19	61	12	60	05	58	58	57	51	56	42	55	34
5	00	61	42	60	37	59	31	58	26	57	20	56	13	55	07
	10	61	04	60	00	58	55	57	51	56	47	55	42	54	37
	20	60	22	59	20	58	17	57	15	56	11	55	08	54	05
	30	59	39	58	39	57	38	56	36	55	34	54	32	53	30
	40	58	54	57	55	56	55	55	55	54	54	53	53	52	53
	50	58	08	57	10	56	10	55	11	54	12	53	13	52	13
6	00	57	19	56	22	55	24	54	26	53	28	52	30	51	31
	10	56	28	55	32	54	35	53	38	52	41	51	45	50	47
	20	55	35	54	41	53	45	52	48	51	53	50	56	50	00
	30	54	40	53	46	52	52	51	57	50	07	49	11	48	16
	40	53	43	52	49	51	56	51	02	50	08	49	14	48	10
	50	52	43	51	51	50	58	50	06	49	12	48	19	47	26
7	00	51	41	50	50	49	58	49	07	48	14	47	23	46	30
	10	50	37	49	47	48	56	48	05	47	14	46	23	45	32
	20	49	31	48	41	47	51	47	01	46	11	45	20	44	31
	30	48	22	47	34	46	45	45	55	45	06	44	17	43	28
	40	47	11	46	23	45	35	44	47	43	11	42	22	41	34
	50	45	57	45	10	44	22	43	36	42	49	41	15	40	28
8	00	44	40	43	54	43	07	42	21	41	35	40	50	40	03
	10	43	20	42	36	41	50	41	05	40	21	39	35	38	51
	20	41	58	41	14	40	30	39	47	39	03	37	35	36	52
	30	40	32	39	50	39	07	38	24	37	42	36	59	36	17
	40	39	05	38	23	37	41	37	00	36	18	35	37	34	56
	50	37	34	36	53	36	13	35	32	34	52	34	12	33	32
9	00	35	59	35	21	34	41	34	01	33	23	32	45	32	06
	10	34	22	33	45	33	06	32	29	31	52	31	15	30	37
	20	32	42	32	06	31	29	30	53	30	17	29	42	29	07
	30	30	59	30	23	29	49	29	15	28	40	28	06	27	33
	40	29	12	28	39	28	05	27	32	27	00	26	28	25	56
	50	27	23	26	51	26	20	25	49	25	18	24	47	24	17
10	00	25	30	25	00	24	31	24	02	23	33	23	05	22	36
	10	23	35	23	07	22	39	22	12	21	45	21	19	20	52
	20	21	36	21	11	20	45	20	20	19	55	19	30	19	07
	30	19	36	19	12	18	49	18	25	18	03	17	40	17	18
	40	17	32	17	11	16	49	16	28	16	09	15	48	15	08
	50	15	25	15	07	14	48	14	30	14	11	13	54	13	36
11	00	13	18	13	02	12	45	12	29	12	14	11	58	11	27
	10	11	08	10	54	10	41	10	27	10	14	10	49	9	48
	20	8	56	8	45	8	35	8	23	8	13	7	52	7	42
	30	6	43	6	35	6	27	6	18	6	03	5	54	5	47
	40	4	30	4	24	4	18	4	13	4	07	3	57	3	52
	50	2	15	2	12	2	09	2	06	2	03	1	59	1	59
12	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 28°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 28°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	c.	o.	o.	o.	o.	o.	o.	o.	o.	o.	o.	o.	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	4 52	4 34	4 17	4 01	3 47	3 33	3 20	3 09	2 58	2 49	2 39	2 30	1	10
	20	9 38	9 02	8 29	7 58	7 29	7 03	6 39	6 16	5 55	5 35	5 16	4 59		20
	30	14 13	13 20	12 33	11 48	11 07	10 28	9 52	9 20	8 48	8 18	7 50	7 24		30
	40	18 31	17 26	16 24	15 27	14 35	13 45	13 00	12 16	11 36	10 57	10 21	9 47		40
	50	22 30	21 13	20 01	18 54	17 52	16 53	15 58	15 06	14 17	13 30	12 47	12 05		50
1	00	26 09	24 43	23 23	22 07	20 56	19 49	18 46	17 46	16 50	15 56	15 05	14 18	1	00
	10	29 26	27 54	26 27	25 05	23 47	22 33	21 24	20 18	19 14	18 15	17 18	16 25		10
	20	32 23	30 46	29 14	27 46	26 24	25 06	23 50	22 39	21 30	20 25	19 23	18 24		20
	30	34 59	33 19	31 45	30 14	28 47	27 25	26 05	24 50	23 37	22 27	21 20	20 17		30
	40	37 17	35 37	34 00	32 27	30 58	29 32	28 10	26 50	25 33	24 20	23 10	22 03		40
	50	39 18	37 37	35 59	34 25	32 54	31 26	30 02	28 40	27 21	26 05	24 51	23 41		50
2	00	41 03	39 23	37 45	36 11	34 39	33 10	31 43	30 20	29 00	27 41	26 25	25 12	2	00
	10	43 35	40 56	39 18	37 43	36 12	34 43	33 16	31 51	30 28	29 08	27 50	26 35		10
	20	45 54	42 16	40 39	39 06	37 35	36 05	34 37	33 12	31 49	30 27	29 09	27 52		20
	30	48 01	43 25	41 50	40 17	38 46	37 18	35 51	34 25	33 01	31 39	30 19	29 02		30
	40	49 59	44 25	42 52	41 20	39 51	38 22	36 55	35 30	34 07	32 44	31 23	30 04		40
	50	46 47	45 15	43 44	42 14	40 45	39 18	37 52	36 27	35 03	33 41	32 21	31 02		50
3	00	47 28	45 58	44 28	42 59	41 32	40 06	38 41	37 16	35 54	34 32	33 11	31 52	3	00
	10	48 01	46 33	45 05	43 39	42 12	40 47	39 23	37 59	36 37	35 16	33 56	32 37		10
	20	48 27	47 01	45 35	44 11	42 46	41 22	39 59	38 37	37 15	35 54	34 34	33 17		20
	30	48 47	47 23	45 59	44 36	43 13	41 51	40 29	39 07	37 47	36 27	35 08	33 50		30
	40	49 02	47 40	46 17	44 56	43 35	42 14	40 53	39 33	38 14	36 55	35 36	34 19		40
	50	49 11	47 51	46 30	45 11	43 51	42 32	41 13	39 54	38 36	37 18	36 00	34 43		50
4	00	49 16	47 58	46 39	45 20	44 02	42 45	41 28	40 09	38 52	37 35	36 18	35 02	4	00
	10	49 16	47 59	46 42	45 26	44 09	42 53	41 38	40 21	39 04	37 49	36 35	35 19		10
	20	49 12	47 57	46 42	45 27	44 13	42 57	41 43	40 28	39 13	37 58	36 44	35 30		20
	30	49 05	47 51	46 37	45 24	44 12	42 58	41 45	40 31	39 18	38 03	36 49	35 37		30
	40	48 54	47 42	46 30	45 19	44 06	42 55	41 42	40 29	39 17	38 04	36 52	35 41		40
	50	48 39	47 29	46 18	45 08	43 57	42 47	41 37	40 25	39 14	38 03	36 52	35 40		50
5	00	48 22	47 15	46 03	44 54	43 45	42 37	41 27	40 17	39 08	37 58	36 47	35 37	5	00
	10	48 01	46 55	45 45	44 38	43 30	42 22	41 15	40 06	38 57	37 49	36 39	35 31		10
	20	47 10	46 06	45 01	44 19	43 13	42 06	40 59	39 51	38 45	37 37	36 29	35 22		20
	30	46 41	45 38	44 34	43 56	42 51	41 46	40 40	39 34	38 28	37 22	36 15	35 09		30
	40	46 09	45 07	44 05	43 03	42 00	40 57	39 54	38 51	37 47	36 43	35 40	34 35		40
	50														50
6	00	45 34	44 33	43 32	42 32	41 30	40 29	39 27	38 24	37 23	36 19	35 17	34 15	6	00
	10	44 56	43 57	42 57	41 58	40 58	39 58	38 58	37 56	36 56	35 54	34 52	33 51		10
	20	44 17	43 19	42 20	41 22	40 23	39 25	38 25	37 26	36 25	35 25	34 25	33 25		20
	30	43 35	42 38	41 41	40 44	39 46	38 48	37 50	36 52	35 53	34 54	33 55	32 56		30
	40	42 50	41 55	40 59	40 03	39 06	38 10	37 13	36 16	35 18	34 21	33 23	32 24		40
	50	42 03	41 09	40 14	39 19	38 24	37 29	36 33	35 37	34 41	33 44	32 48	31 52		50
7	00	41 14	40 21	39 27	38 33	37 39	36 46	35 51	34 56	34 01	33 07	32 11	31 16	7	00
	10	40 22	39 31	38 38	37 45	36 53	36 00	35 06	34 13	33 20	32 26	31 32	30 38		10
	20	39 29	38 37	37 46	36 55	36 03	35 12	34 20	33 27	32 36	31 43	30 50	29 58		20
	30	38 32	37 42	36 52	36 02	35 12	34 22	33 31	32 40	31 50	31 01	30 10	29 15		30
	40	37 33	36 45	35 56	35 07	34 18	33 29	32 40	31 50	31 01	30 10	29 21	28 32		40
	50	36 32	35 45	34 57	34 10	33 22	32 35	31 47	30 58	30 10	29 22	28 34	27 45		50
8	00	35 29	34 43	33 56	33 10	32 24	31 37	30 51	30 04	29 17	28 29	27 43	26 57	8	00
	10	34 23	33 38	32 53	32 08	31 23	30 38	29 54	29 08	28 22	27 37	26 52	26 06		10
	20	33 14	32 31	31 47	31 04	30 20	29 37	28 54	28 10	27 26	26 41	25 58	25 14		20
	30	32 04	31 22	30 40	29 58	29 16	28 34	27 51	27 09	26 27	25 44	25 02	24 19		30
	40	30 52	30 11	29 30	28 50	28 09	27 28	26 47	26 07	25 26	24 45	24 04	23 23		40
	50	29 37	28 57	28 18	27 39	26 59	26 21	25 42	25 02	24 24	23 44	23 05	22 26		50
9	00	28 19	27 41	27 04	26 26	25 48	25 12	24 34	23 56	23 18	22 41	22 04	21 25	9	00
	10	26 59	26 24	25 47	25 12	24 36	24 00	23 24	22 47	22 12	21 37	21 00	20 25		10
	20	25 38	25 03	24 29	23 55	23 20	22 47	22 13	21 39	21 05	20 30	19 56	19 22		20
	30	24 13	23 41	23 08	22 36	22 03	21 31	20 58	20 27	19 55	19 21	18 49	18 17		30
	40	22 48	22 17	21 45	21 14	20 44	20 14	19 44	19 12	18 42	18 12	17 42	17 12		40
	50	21 19	20 50	20 21	19 52	19 23	18 55	18 27	17 58	17 30	17 01	16 33	16 04		50
10	00	19 49	19 23	18 55	18 28	18 01	17 35	17 08	16 42	16 15	15 48	15 22	14 56	10	00
	10	18 18	17 52	17 27	17 02	16 37	16 13	15 48	15 23	14 59	14 34	14 10	13 45		10
	20	16 44	16 21	16 01	15 37	15 12	14 49	14 27	14 04	13 41	13 19	12 57	12 35		20
	30	15 08	14 48	14 26	14 05	13 44	13 24	13 04	12 43	12 23	12 03	11 42	11 23		30
	40	13 31	13 13	12 54	12 35	12 17	11 59	11 39	11 21	11 04	10 45	10 27	10 09		40
	50	11 53	11 37	11 20	11 04	10 47	10 31	10 15	9 59	9 43	9 26	9 11	8 55		50
11	00	10 14	10 00	9 45	9 31	9 17	9 03	8 49	8 35	8 21	8 07	7 54	7 40	11	00
	10	8 33	8 21	8 10	7 58	7 46	7 34	7 22	7 11	6 58	6 47	6 35	6 24		10
	20	6 52	6 42	6 32	6 23	6 13	6 04	5 54	5 45	5 36	5 27	5 18	5 08		20
	30	5 10	5 03	4 55	4 48	4 41	4 34	4 27	4 20	4 13	4 05	3 58	3 52		30
	40	3 27	3 22	3 17	3 12	3 07	3 02	2 58	2 53	2 48	2 44	2 39	2 35		40
	50	1 43	1 41	1 39	1 36	1 34	1 32	1 29	1 27	1 24	1 21	1 19	1 17		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 28°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 28°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	2 22	2 13	2 06	1 59	1 52	1 46	1 39	1 33	1 28	1 22	1 16	10
	20	4 42	4 25	4 11	3 57	3 42	3 30	3 18	3 06	2 54	2 43	2 33	20
	30	6 59	6 36	6 14	5 53	5 33	5 13	4 55	4 37	4 20	4 04	3 48	30
	40	9 15	8 44	8 15	7 47	7 21	6 55	6 31	6 08	5 45	5 24	5 03	40
	50	11 25	10 48	10 12	9 38	9 06	8 35	8 05	7 36	7 09	6 43	6 16	50
1	00	13 32	12 48	12 06	11 27	10 48	10 11	9 36	9 02	8 29	7 58	7 29	1
	10	15 32	14 43	13 55	13 10	12 27	11 45	11 05	10 26	9 49	9 13	8 38	10
	20	17 27	16 32	15 40	14 50	14 01	13 15	12 30	11 47	11 06	10 25	9 46	20
	30	19 15	18 16	17 20	16 25	15 32	14 41	13 52	13 05	12 20	11 36	10 53	30
	40	20 58	19 54	18 53	17 55	16 58	16 04	15 11	14 20	13 30	12 43	11 56	40
	50	22 32	21 25	20 22	19 20	18 20	17 21	16 25	15 31	14 38	13 47	12 57	50
2	00	24 00	22 51	21 45	20 40	19 36	18 35	17 36	16 39	15 42	14 47	13 55	2
	10	25 22	24 10	23 01	21 54	20 48	19 44	18 43	17 41	16 42	15 46	14 50	10
	20	26 37	25 23	24 13	23 03	21 55	20 48	19 45	18 42	17 40	16 40	15 42	20
	30	27 46	26 31	25 18	24 07	22 57	21 49	20 42	19 37	18 33	17 32	16 31	30
	40	28 48	27 32	26 18	25 05	23 54	22 45	21 37	20 29	19 23	18 19	17 17	40
	50	29 44	28 27	27 12	25 59	24 46	23 35	22 26	21 17	20 10	19 05	18 00	50
3	00	30 34	29 17	28 01	26 47	25 33	24 21	23 11	22 01	20 53	19 45	18 39	3
	10	31 18	30 01	28 46	27 31	26 16	25 04	23 52	22 41	21 32	20 24	19 16	10
	20	31 58	30 40	29 24	28 09	26 55	25 42	24 30	23 19	22 07	20 59	19 50	20
	30	32 33	31 15	30 00	28 44	27 29	26 16	25 03	23 51	22 40	21 30	20 21	30
	40	33 02	31 45	30 30	29 15	27 59	26 45	25 33	24 21	23 08	21 58	20 48	40
	50	33 27	32 11	30 55	29 40	28 26	27 12	25 59	24 46	23 34	22 23	21 13	50
4	00	33 47	32 31	31 16	30 02	28 47	27 34	26 21	25 09	23 57	22 45	21 34	4
	10	34 03	32 48	31 34	30 20	29 05	27 53	26 40	25 27	24 15	23 04	21 53	10
	20	34 16	33 01	31 48	30 35	29 21	28 08	26 56	25 43	24 31	23 19	22 08	20
	30	34 23	33 11	31 57	30 45	29 32	28 20	27 08	25 55	24 44	23 32	22 21	30
	40	34 28	33 15	32 04	30 52	29 40	28 28	27 17	26 05	24 54	23 42	22 31	40
	50	34 30	33 18	32 07	30 56	29 44	28 33	27 23	26 11	25 01	23 50	22 40	50
5	00	34 27	33 16	32 07	30 57	29 46	28 35	27 25	26 15	25 05	23 55	22 44	5
	10	34 22	33 13	32 04	30 55	29 44	28 35	27 26	26 16	25 06	23 56	22 47	10
	20	34 14	33 05	31 57	30 49	29 40	28 31	27 23	26 14	25 05	23 56	22 47	20
	30	34 02	32 55	31 48	30 40	29 32	28 25	27 17	26 09	25 01	23 53	22 45	30
	40	33 48	32 42	31 36	30 30	29 22	28 16	27 09	26 02	24 55	23 48	22 40	40
	50	33 30	32 26	31 21	30 16	29 09	28 04	26 59	25 53	24 46	23 40	22 33	50
6	00	33 10	32 07	31 03	30 00	28 55	27 50	26 46	25 40	24 35	23 30	22 24	6
	10	32 49	31 46	30 44	29 41	28 37	27 33	26 30	25 26	24 22	23 17	22 13	10
	20	32 23	31 22	30 21	29 19	28 17	27 15	26 12	25 09	24 06	23 03	22 00	20
	30	31 56	30 56	29 56	28 56	27 54	26 53	25 52	24 50	23 48	22 46	21 44	30
	40	31 27	30 28	29 29	28 29	27 30	26 30	25 30	24 30	23 29	22 28	21 27	40
	50	30 55	29 57	29 00	28 01	27 03	26 05	25 06	24 06	23 07	22 07	21 08	50
7	00	30 20	29 24	28 28	27 31	26 34	25 37	24 40	23 41	22 43	21 45	20 46	7
	10	29 44	28 49	27 53	26 58	26 02	25 07	24 11	23 14	22 17	21 20	20 22	10
	20	29 04	28 11	27 17	26 24	25 29	24 35	23 40	22 45	21 49	20 54	19 58	20
	30	28 24	27 31	26 39	25 47	24 54	24 01	23 08	22 14	21 20	20 26	19 32	30
	40	27 41	26 50	26 00	25 09	24 17	23 25	22 34	21 42	20 49	19 57	19 04	40
	50	26 56	26 07	25 18	24 29	23 38	22 48	21 58	21 07	20 16	19 25	18 34	50
8	00	26 09	25 21	24 34	23 46	22 57	22 09	21 20	20 31	19 41	18 52	18 02	8
	10	25 20	24 34	23 47	22 59	22 14	21 27	20 40	19 53	19 05	18 17	17 29	10
	20	24 29	23 44	22 56	22 16	21 30	20 44	20 00	19 14	18 27	17 41	16 55	20
	30	23 36	22 53	22 11	21 27	20 44	20 01	19 16	18 32	17 48	17 04	16 18	30
	40	22 42	22 01	21 19	20 38	19 56	19 14	18 32	17 49	17 07	16 24	15 42	40
	50	21 46	21 07	20 27	19 47	19 06	18 27	17 46	17 06	16 25	15 44	15 03	50
9	00	20 48	20 10	19 32	18 55	18 16	17 37	16 59	16 20	15 42	15 02	14 23	9
	10	19 49	19 12	18 36	18 00	17 23	16 47	16 11	15 33	14 56	14 19	13 41	10
	20	18 48	18 13	17 40	17 05	16 30	15 55	15 21	14 45	14 11	13 35	12 59	20
	30	17 44	17 12	16 41	16 08	15 35	15 02	14 30	13 57	13 23	12 50	12 17	30
	40	16 41	16 11	15 40	15 10	14 39	14 08	13 38	13 06	12 35	12 03	11 32	40
	50	15 36	15 07	14 39	14 10	13 41	13 13	12 44	12 14	11 46	11 17	10 47	50
10	00	14 29	14 03	13 36	13 10	12 42	12 15	11 49	11 22	10 55	10 28	10 00	10
	10	13 21	12 56	12 32	12 07	11 42	11 18	10 53	10 28	10 03	9 39	9 13	10
	20	12 12	11 49	11 27	11 05	10 42	10 20	9 58	9 35	9 12	8 49	8 26	20
	30	11 01	10 41	10 21	10 01	9 41	9 21	9 00	8 39	8 19	7 58	7 38	30
	40	9 51	9 33	9 15	8 56	8 38	8 21	8 02	7 43	7 25	7 07	6 48	40
	50	8 39	8 23	8 08	7 51	7 35	7 19	7 03	6 47	6 31	6 15	5 59	50
11	00	7 26	7 12	6 59	6 45	6 31	6 18	6 04	5 50	5 36	5 22	5 08	11
	10	6 13	6 01	5 50	5 39	5 27	5 16	5 04	4 52	4 41	4 29	4 18	10
	20	4 59	4 49	4 41	4 31	4 22	4 13	4 04	3 54	3 45	3 36	3 27	20
	30	3 45	3 37	3 31	3 24	3 17	3 10	3 04	2 56	2 49	2 42	2 35	30
	40	2 29	2 25	2 21	2 16	2 11	2 07	2 02	1 53	1 49	1 44	1 40	40
	50	1 15	1 13	1 10	1 08	1 06	1 03	1 01	0 59	0 57	0 54	0 52	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 29°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 29°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	′	°	′	°	′	°	′	°	′	°	′	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	155 19	150 18	142 56	131 35	113 52	89 24	64 43	46 38	35 03	27 33	22 27	18 48	1	00
	20	137 02	130 46	122 54	113 12	101 37	88 47	75 50	63 55	53 54	45 43	39 11	34 34		10
	30	124 57	119 10	112 31	105 01	96 50	88 11	79 27	71 01	63 14	56 13	50 04	44 43		20
	40	116 53	111 50	106 19	100 23	94 05	87 34	81 00	74 32	68 18	62 28	57 04	52 08		30
	50	111 11	106 50	102 11	97 17	92 11	86 58	81 41	76 26	71 19	66 23	61 41	57 16		40
1	00	106 57	103 09	99 09	95 00	90 43	86 21	81 56	77 32	73 11	68 56	64 50	60 53	1	00
	10	103 38	100 17	96 47	93 11	89 29	85 44	81 56	78 08	74 22	70 39	67 01	63 29		10
	20	100 57	97 56	94 51	91 40	88 24	85 07	81 47	78 27	75 06	71 48	68 33	65 22		20
	30	98 41	95 58	93 11	90 21	87 26	84 29	81 31	78 32	75 33	72 35	69 39	66 44		30
	40	96 45	94 16	91 44	89 09	86 32	83 52	81 12	78 28	75 47	73 05	70 23	67 44		40
	50	95 02	92 45	90 26	88 04	85 39	83 14	80 47	78 18	75 50	73 22	70 53	68 27		50
2	00	93 30	91 23	89 14	87 02	84 49	82 36	80 20	78 04	75 47	73 30	71 13	68 56	2	00
	10	92 05	90 06	88 07	86 05	84 02	81 57	79 52	77 45	75 38	73 30	71 23	69 15		10
	20	90 46	88 56	87 04	85 10	83 15	81 19	79 22	77 23	75 24	73 25	71 25	69 26		20
	30	89 33	87 49	86 03	84 17	82 29	80 39	78 50	76 58	75 06	73 15	71 22	69 29		30
	40	88 24	86 45	85 05	83 25	81 43	79 59	78 15	76 31	74 46	73 00	71 13	69 27		40
	50	87 18	85 44	84 09	82 34	80 57	79 19	77 41	76 02	74 22	72 41	71 00	69 19		50
3	00	86 14	84 45	83 15	81 44	80 11	78 39	77 05	75 31	73 55	72 20	70 45	69 08	3	00
	10	85 12	83 58	82 21	80 54	79 26	77 57	76 28	74 58	73 27	71 56	70 24	68 52		10
	20	84 12	82 50	81 28	80 05	78 40	77 16	75 50	74 23	72 57	71 30	70 02	68 34		20
	30	83 14	81 54	80 35	79 16	77 54	76 33	75 11	73 49	72 25	71 01	69 37	68 12		30
	40	82 17	81 00	79 44	78 26	77 09	75 50	74 31	73 11	71 52	70 31	69 09	67 47		40
	50	81 21	80 05	78 52	77 37	76 22	75 06	73 50	72 33	71 16	69 58	68 39	67 21		50
4	00	80 23	79 11	78 00	76 48	75 35	74 22	73 08	71 54	70 39	69 24	68 08	66 52	4	00
	10	79 26	78 17	77 08	75 58	74 47	73 36	72 25	71 13	70 01	68 48	67 34	66 21		10
	20	78 29	77 23	76 15	75 08	73 59	72 50	71 41	70 31	69 21	68 10	66 59	65 47		20
	30	77 33	76 28	75 23	74 17	73 10	72 03	70 55	69 47	68 40	67 31	66 21	65 12		30
	40	76 37	75 33	74 30	73 25	72 20	71 15	70 09	69 03	67 57	66 50	65 42	64 35		40
	50	75 40	74 38	73 35	72 33	71 30	70 26	69 22	68 18	67 13	66 07	65 02	63 56		50
5	00	74 43	73 42	72 41	71 40	70 37	69 36	68 33	67 30	66 27	65 23	64 19	63 15	5	00
	10	73 46	72 46	71 46	70 46	69 46	68 44	67 43	66 42	65 40	64 38	63 35	62 32		10
	20	72 48	71 48	70 50	69 51	68 51	67 52	66 52	65 51	64 51	63 50	62 49	61 48		20
	30	71 48	70 50	69 53	68 54	67 56	66 58	65 58	64 58	63 57	62 56	61 55	60 54		30
	40	70 48	69 51	68 55	67 57	66 59	65 03	64 06	63 08	62 10	61 11	60 12	59 13		40
	50	69 46	68 51	67 55	66 59	65 03	64 08	63 13	62 17	61 21	60 24	59 27	58 31		50
6	00	68 43	67 49	66 54	65 59	65 03	64 08	63 13	62 17	61 21	60 24	59 27	58 31	6	00
	10	67 39	66 46	65 52	64 57	64 03	63 08	62 14	61 19	60 24	59 28	58 33	57 37		10
	20	66 34	65 41	64 48	63 54	63 01	62 07	61 13	60 19	59 25	58 31	57 36	56 42		20
	30	65 28	64 35	63 43	62 50	61 57	61 04	60 11	59 17	58 24	57 31	56 37	55 43		30
	40	64 20	63 27	62 35	61 43	60 51	59 59	59 07	58 14	57 21	56 29	55 37	54 43		40
	50	63 08	62 17	61 26	60 35	59 43	58 52	58 00	57 08	56 17	55 26	54 34	53 42		50
7	00	61 56	61 06	60 15	59 24	58 33	57 43	56 53	56 01	55 11	54 20	53 28	52 37	7	00
	10	60 42	59 52	59 02	58 12	57 21	56 31	55 42	54 51	54 01	53 11	52 21	51 31		10
	20	59 25	58 36	57 46	56 57	56 07	55 18	54 29	53 39	52 50	52 01	51 12	50 23		20
	30	58 07	57 17	56 29	55 39	54 51	54 02	53 14	52 25	51 36	50 49	50 00	49 11		30
	40	56 45	55 57	55 09	54 19	53 32	52 44	51 56	51 08	50 20	49 33	48 45	47 58		40
	50	55 21	54 33	53 46	52 57	52 10	51 23	50 36	49 48	49 02	48 15	47 28	46 41		50
8	00	53 54	53 06	52 19	51 32	50 45	49 58	49 12	48 26	47 40	46 54	46 09	45 23	8	00
	10	52 23	51 37	50 51	50 03	49 18	48 32	47 47	47 01	46 16	45 31	44 46	44 01		10
	20	50 50	50 04	49 18	48 32	47 47	47 02	46 16	45 33	44 49	44 04	43 20	42 37		20
	30	49 13	48 27	47 43	46 58	46 14	45 29	44 46	44 02	43 18	42 35	41 52	41 09		30
	40	47 32	46 48	46 04	45 20	44 36	43 53	43 11	42 28	41 45	41 04	40 21	39 38		40
	50	45 49	45 04	44 21	43 38	42 56	42 14	41 32	40 51	40 09	39 28	38 48	38 07		50
9	00	44 00	43 18	42 35	41 53	41 11	40 30	39 50	39 09	38 30	37 49	37 10	36 30	9	00
	10	42 08	41 26	40 45	40 04	39 24	38 42	38 04	37 25	36 46	36 08	35 30	34 52		10
	20	40 12	39 31	38 52	38 12	37 32	36 54	36 15	35 38	35 00	34 23	33 46	33 10		20
	30	38 11	37 32	36 54	36 15	35 37	35 00	34 23	33 46	33 11	32 34	31 59	31 24		30
	40	36 06	35 28	34 51	34 14	33 38	33 02	32 27	31 52	31 18	30 43	30 10	29 36		40
	50	33 57	33 20	32 46	32 10	31 35	31 01	30 27	29 54	29 22	28 49	28 17	27 45		50
10	00	31 43	31 08	30 34	30 01	29 28	28 56	28 24	27 52	27 22	26 51	26 21	25 51	10	00
	10	29 24	28 52	28 20	27 48	27 17	26 47	26 17	25 48	25 18	24 50	24 21	23 53		10
	20	27 01	26 31	26 01	25 32	25 03	24 34	24 07	23 40	23 13	22 46	22 19	21 54		20
	30	24 34	24 06	23 38	23 12	22 45	22 19	21 53	21 27	21 03	20 38	20 15	19 51		30
	40	22 03	21 37	21 12	20 47	20 23	19 59	19 36	19 13	18 51	18 28	18 07	17 46		40
	50	19 27	19 04	18 42	18 19	17 58	17 37	17 17	16 55	16 36	16 16	15 57	15 38		50
11	00	16 48	16 28	16 08	15 49	15 30	15 11	14 53	14 36	14 18	14 01	13 45	13 28	11	00
	10	14 05	13 48	13 32	13 15	13 00	12 44	12 28	12 13	11 59	11 45	11 31	11 17		10
	20	11 20	11 06	10 53	10 39	10 26	10 14	10 02	9 49	9 38	9 26	9 15	9 03		20
	30	8 32	8 23	8 12	8 01	7 51	7 42	7 33	7 23	7 14	7 06	6 58	6 49		30
	40	5 42	5 35	5 28	5 22	5 16	5 09	5 02	4 56	4 50	4 45	4 38	4 33		40
	50	2 52	2 48	2 44	2 41	2 38	2 35	2 31	2 28	2 25	2 22	2 19	2 16		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 29°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 29°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	16 07	14 01	12 22	11 02	9 55	8 59	8 11	7 31	6 54	6 22	5 55	5 29		10
	20	29 45	26 20	23 31	21 09	19 10	17 27	15 58	14 41	13 33	12 33	11 39	10 50		20
	30	40 08	36 11	32 47	29 50	27 16	25 01	23 02	21 18	19 44	18 19	17 04	15 56		30
	40	47 42	43 43	40 09	36 57	34 06	31 34	29 15	27 11	25 19	23 36	22 04	20 40		40
	50	53 10	49 22	45 52	42 39	39 43	37 02	34 33	32 18	30 14	28 21	26 36	24 59		50
1	00	57 09	53 36	50 17	47 09	44 15	41 33	39 02	36 42	34 31	32 30	30 37	28 52	1	00
	10	60 05	56 49	53 42	50 44	47 56	45 17	42 46	40 25	38 11	36 06	34 09	32 18		10
	20	62 16	59 15	56 20	53 33	50 51	48 19	45 51	43 32	41 20	39 13	37 13	35 20		20
	30	63 53	61 07	58 24	55 47	53 14	50 47	48 25	46 09	43 59	41 53	39 54	38 00		30
	40	65 07	62 32	60 00	57 32	55 08	52 48	50 31	48 19	46 12	44 10	42 12	40 18		40
	50	66 01	63 36	61 15	58 56	56 39	54 26	52 15	50 08	48 05	46 05	44 09	42 17		50
2	00	66 41	64 26	62 13	60 02	57 52	55 45	53 41	51 39	49 39	47 43	45 50	43 59	2	00
	10	67 08	65 01	62 57	60 52	58 50	56 49	54 50	52 52	50 58	48 67	46 75	44 87		10
	20	67 26	65 27	63 29	61 32	59 35	57 40	55 46	53 54	52 02	50 13	48 26	46 41		20
	30	67 37	65 44	63 52	62 01	60 09	58 19	56 30	54 42	52 55	51 10	49 27	47 44		30
	40	67 40	65 54	64 06	62 20	60 30	58 50	57 05	55 21	53 39	51 57	50 16	48 37		40
	50	67 38	65 57	64 15	62 33	60 52	59 12	57 31	55 52	54 12	52 33	50 56	49 20		50
3	00	67 31	65 54	64 17	62 41	61 03	59 27	57 50	56 14	54 39	53 03	51 29	49 55	3	00
	10	67 19	66 47	64 14	62 41	61 09	59 36	58 03	56 30	54 58	53 26	51 54	50 23		10
	20	67 06	66 36	64 07	62 38	61 08	59 39	58 09	56 40	55 10	53 41	52 12	50 44		20
	30	66 47	66 22	63 56	62 29	61 03	59 37	58 10	56 44	55 18	53 51	52 25	50 59		30
	40	66 26	66 03	63 40	62 17	60 55	59 31	58 07	56 44	55 20	53 56	52 33	51 09		40
	50	66 02	65 42	63 22	62 02	60 42	59 21	58 00	56 39	55 18	53 57	52 35	51 14		50
4	00	65 35	64 18	63 02	61 44	60 26	59 07	57 48	56 31	55 11	53 52	52 33	51 14	4	00
	10	65 07	63 52	62 37	61 21	60 06	58 51	57 34	56 18	55 01	53 44	52 27	51 10		10
	20	64 35	63 23	62 10	60 57	59 43	58 30	57 16	56 02	54 47	53 32	52 17	51 03		20
	30	64 02	62 51	61 41	60 30	59 19	58 06	56 55	55 43	54 30	53 17	52 04	50 50		30
	40	63 27	62 19	61 10	60 00	58 51	57 41	56 31	55 21	54 10	52 58	51 47	50 35		40
	50	62 50	61 43	60 36	59 28	58 20	57 13	56 04	54 55	53 46	52 37	51 28	50 17		50
5	00	62 10	61 05	60 00	58 54	57 48	56 42	55 35	54 28	53 20	52 12	51 04	49 56	5	00
	10	61 29	60 25	59 22	58 17	57 12	56 08	55 02	53 57	52 51	51 45	50 39	49 31		10
	20	60 46	59 43	58 41	57 39	56 35	55 31	54 27	53 22	52 16	51 10	50 04	48 56		20
	30	60 01	59 00	57 59	56 57	55 53	54 53	53 51	52 48	51 45	50 43	49 39	48 35		30
	40	59 14	58 14	57 14	56 13	55 14	54 12	53 11	52 11	51 09	50 07	49 06	48 03		40
	50	58 24	57 26	56 28	55 29	54 30	53 30	52 30	51 30	50 30	49 30	48 29	47 28		50
6	00	57 34	56 37	55 40	54 41	53 44	52 46	51 47	50 48	49 49	48 50	47 50	46 50	6	00
	10	56 41	55 45	54 48	53 51	52 55	51 58	51 00	50 03	49 06	48 09	47 11	46 10		10
	20	55 46	54 51	53 56	53 00	52 05	51 09	50 12	49 16	48 19	47 22	46 26	45 28		20
	30	54 50	53 56	53 01	52 07	51 12	50 17	49 22	48 27	47 32	46 36	45 39	44 43		30
	40	53 50	52 57	52 04	51 12	50 18	49 23	48 29	47 35	46 41	45 46	44 51	43 57		40
	50	52 49	51 57	51 05	50 13	49 20	48 27	47 34	46 41	45 47	44 54	44 01	43 07		50
7	00	51 46	50 55	50 04	49 12	48 21	47 29	46 37	45 45	44 53	44 00	43 08	42 15	7	00
	10	50 41	49 51	49 00	48 09	47 19	46 27	45 37	44 46	43 55	43 04	42 13	41 21		10
	20	49 33	48 43	47 54	47 04	46 15	45 25	44 35	43 46	42 56	42 06	41 15	40 24		20
	30	48 23	47 34	46 45	45 57	45 08	44 20	43 30	42 42	41 53	41 04	40 15	39 26		30
	40	47 10	46 22	45 35	44 47	44 00	43 12	42 24	41 37	40 49	40 01	39 13	38 26		40
	50	45 55	45 08	44 22	43 34	42 49	42 01	41 15	40 29	39 42	38 56	38 09	37 22		50
8	00	44 36	43 51	43 05	42 20	41 35	40 49	40 04	39 18	38 33	37 47	37 02	36 16	8	00
	10	43 17	42 31	41 47	41 02	40 18	39 34	38 49	38 06	37 22	36 37	35 53	35 08		10
	20	41 54	41 09	40 26	39 42	38 59	38 16	37 33	36 50	36 07	35 24	34 42	33 58		20
	30	40 27	39 44	39 03	38 20	37 38	36 56	36 14	35 32	34 50	34 09	33 27	32 46		30
	40	38 56	38 17	37 36	36 55	36 14	35 33	34 52	34 12	33 32	32 51	32 11	31 31		40
	50	37 27	36 46	36 07	35 26	34 47	34 08	33 28	32 49	32 11	31 31	30 53	30 13		50
9	00	35 52	35 13	34 34	33 55	33 18	32 40	32 01	31 24	30 46	30 09	29 31	28 54	9	00
	10	34 14	33 37	32 59	32 22	31 46	31 09	30 32	29 57	29 20	28 44	28 08	27 33		10
	20	32 33	31 57	31 22	30 46	30 12	29 35	29 01	28 27	27 52	27 17	26 43	26 09		20
	30	30 50	30 15	29 41	29 07	28 33	28 00	27 27	26 54	26 21	25 48	25 16	24 44		30
	40	29 04	28 30	27 58	27 25	26 53	26 22	25 49	25 19	24 47	24 16	23 45	23 15		40
	50	27 13	26 43	26 12	25 41	25 11	24 41	24 11	23 42	23 12	22 42	22 13	21 45		50
10	00	25 21	24 52	24 23	23 54	23 26	22 58	22 30	22 02	21 35	21 08	20 41	20 13	10	00
	10	23 26	22 58	22 32	22 05	21 38	21 12	20 46	20 20	19 54	19 29	19 04	18 39		10
	20	21 28	21 03	20 38	20 13	19 48	19 25	19 00	18 37	18 13	17 50	17 27	17 04		20
	30	19 27	19 04	18 42	18 19	17 56	17 35	17 13	16 51	16 30	16 09	15 48	15 26		30
	40	17 24	17 04	16 43	16 22	16 03	15 43	15 23	15 04	14 45	14 25	14 06	13 48		40
	50	15 20	15 01	14 42	14 24	14 07	13 49	13 31	13 14	12 57	12 41	12 24	12 07		50
11	00	13 12	12 55	12 40	12 24	12 09	11 53	11 39	11 24	11 10	10 54	10 40	10 26	11	00
	10	11 03	10 50	10 37	10 22	10 10	9 57	9 45	9 32	9 20	9 07	8 55	8 43		10
	20	8 52	8 41	8 31	8 19	8 10	8 00	7 49	7 39	7 29	7 20	7 09	6 59		20
	30	6 41	6 32	6 24	6 15	6 08	6 00	5 53	5 45	5 37	5 30	5 23	5 15		30
	40	4 27	4 21	4 17	4 11	4 05	4 01	3 55	3 50	3 46	3 41	3 35	3 30		40
	50	2 14	2 11	2 08	2 06	2 03	2 00	1 58	1 56	1 54	1 50	1 48	1 45		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 29°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 29°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
	10	2 25	2 17	2 09	2 02	1 55	1 48	1 42	1 35	1 29	1 24	1 18		10			
	20	4 50	4 34	4 17	4 02	3 48	3 35	3 22	3 10	2 58	2 47	2 36		20			
	30	7 11	6 47	6 24	6 02	5 41	5 21	5 02	4 43	4 26	4 09	3 53		30			
	40	9 30	8 58	8 28	7 59	7 32	7 05	6 40	6 16	5 52	5 30	5 09		40			
	50	11 45	11 06	10 29	9 52	9 18	8 46	8 16	7 46	7 18	6 50	6 24		50			
1	00	13 53	13 08	12 24	11 43	11 03	10 25	9 48	9 14	8 41	8 08	7 37	1	00			
	10	15 57	15 05	14 16	13 29	12 44	12 01	11 20	10 39	10 01	9 24	8 49		10			
	20	17 53	16 57	16 03	15 11	14 21	13 33	12 47	12 02	11 18	10 37	9 57		20			
	30	19 44	18 42	17 44	16 47	15 53	15 00	14 10	13 21	12 34	11 48	11 05		30			
	40	21 27	20 22	19 19	18 19	17 21	16 23	15 29	14 37	13 45	12 56	12 09		40			
	50	23 03	21 55	20 49	19 44	18 42	17 43	16 45	15 49	14 54	14 01	13 10		50			
2	00	24 32	23 22	22 13	21 05	20 01	18 57	17 56	16 58	16 00	15 03	14 09	2	00			
	10	25 55	24 41	23 30	22 20	21 13	20 07	19 03	18 01	17 01	16 01	15 04		10			
	20	27 10	25 54	24 41	23 29	22 20	21 12	20 06	19 02	17 59	16 57	15 58		20			
	30	28 18	27 02	25 48	24 34	23 22	22 12	21 04	19 58	18 53	17 49	16 47		30			
	40	29 20	28 02	26 47	25 22	24 19	23 09	21 59	20 50	19 43	18 37	17 33		40			
	50	30 16	28 58	27 41	26 26	25 12	23 59	22 48	21 38	20 30	19 22	18 17		50			
3	00	31 06	29 47	28 31	27 15	26 00	24 46	23 34	22 23	21 13	20 04	18 57	3	00			
	10	31 50	30 32	29 14	27 58	26 43	25 28	24 15	23 03	21 52	20 42	19 34		10			
	20	32 29	31 11	29 53	28 36	27 20	26 06	24 52	23 39	22 28	21 17	20 07		20			
	30	33 02	31 44	30 27	29 11	27 55	26 40	25 26	24 12	23 00	21 48	20 38		30			
	40	33 31	32 14	30 57	29 40	28 24	27 09	25 55	24 41	23 28	22 16	21 05		40			
	50	33 55	32 38	31 21	30 05	28 50	27 35	26 20	25 06	23 53	22 41	21 30		50			
4	00	34 14	32 57	31 42	30 27	29 11	27 56	26 42	25 29	24 15	23 02	21 51	4	00			
	10	34 29	33 13	31 58	30 44	29 28	28 14	27 01	25 47	24 33	23 21	22 09		10			
	20	34 40	33 26	32 12	30 57	29 43	28 29	27 15	26 02	24 49	23 36	22 24		20			
	30	34 48	33 34	32 20	31 07	29 53	28 40	27 27	26 14	25 01	23 49	22 38		30			
	40	34 52	33 39	32 26	31 13	30 00	28 48	27 36	26 23	25 11	23 59	22 47		40			
	50	34 54	33 40	32 29	31 16	30 04	28 52	27 40	26 29	25 16	24 05	22 55		50			
5	00	34 48	33 37	32 27	31 16	30 05	28 53	27 43	26 31	25 20	24 09	22 59	5	00			
	10	34 41	33 32	32 23	31 13	30 03	28 52	27 42	26 32	25 21	24 11	23 01		10			
	20	34 32	33 24	32 16	31 06	29 57	28 48	27 39	26 30	25 19	24 10	23 00		20			
	30	34 20	33 12	32 05	30 57	29 49	28 41	27 33	26 24	25 16	24 06	22 58		30			
	40	34 05	32 59	31 52	30 45	29 38	28 31	27 24	26 16	25 08	24 01	22 53		40			
	50	33 46	32 42	31 37	30 31	29 25	28 19	27 13	26 06	24 59	23 52	22 45		50			
6	00	33 26	32 22	31 18	30 14	29 08	28 03	26 58	25 53	24 48	23 42	22 36	6	00			
	10	33 02	31 59	30 57	29 54	28 51	27 47	26 43	25 39	24 34	23 29	22 24		10			
	20	32 36	31 36	30 34	29 32	28 29	27 27	26 25	25 21	24 17	23 14	22 10		20			
	30	32 08	31 08	30 08	29 08	28 06	27 05	26 04	25 02	23 59	22 57	21 54		30			
	40	31 38	30 38	29 39	28 40	27 40	26 41	25 41	24 40	23 38	22 37	21 36		40			
	50	31 05	30 07	29 09	28 11	27 13	26 15	25 16	24 16	23 16	22 16	21 17		50			
7	00	30 29	29 33	28 37	27 40	26 43	25 46	24 49	23 51	22 52	21 53	20 54	7	00			
	10	29 51	28 57	28 02	27 07	26 11	25 15	24 20	23 23	22 26	21 28	20 31		10			
	20	29 12	28 19	27 26	26 32	25 38	24 43	23 49	22 53	21 57	21 02	20 06		20			
	30	28 31	27 39	26 47	25 55	25 02	24 08	23 16	22 22	21 27	20 33	19 39		30			
	40	27 47	26 57	26 07	25 16	24 24	23 33	22 41	21 49	20 55	20 02	19 10		40			
	50	27 01	26 12	25 24	24 34	23 44	22 54	22 04	21 13	20 22	19 30	18 40		50			
8	00	26 14	25 26	24 39	23 51	23 03	22 14	21 26	20 37	19 47	18 57	18 07	8	00			
	10	25 24	24 39	23 53	23 06	22 19	21 32	20 46	19 58	19 10	18 22	17 34		10			
	20	24 33	23 49	23 04	22 20	21 34	20 50	20 05	19 18	18 32	17 46	16 59		20			
	30	23 40	22 57	22 15	21 32	20 48	20 04	19 21	18 37	17 52	17 08	16 23		30			
	40	22 47	22 04	21 23	20 42	20 00	19 18	18 37	17 54	17 11	16 28	15 46		40			
	50	21 49	21 09	20 29	19 49	19 10	18 30	17 50	17 10	16 29	15 48	15 07		50			
9	00	20 50	20 13	19 35	18 57	18 19	17 41	17 02	16 23	15 45	15 06	14 27	9	00			
	10	19 51	19 15	18 39	18 02	17 27	16 50	16 14	15 36	14 59	14 22	13 45		10			
	20	18 49	18 15	17 41	17 06	16 32	15 58	15 24	14 49	14 14	13 38	13 03		20			
	30	17 46	17 14	16 42	16 09	15 37	15 04	14 31	13 59	13 26	12 53	12 20		30			
	40	16 42	16 12	15 41	15 11	14 41	14 10	13 40	13 08	12 37	12 06	11 35		40			
	50	15 36	15 08	14 40	14 11	13 43	13 15	12 45	12 17	11 48	11 18	10 49		50			
10	00	14 29	14 03	13 37	13 10	12 43	12 18	11 51	11 24	10 57	10 30	10 03	10	00			
	10	13 21	12 57	12 32	12 08	11 44	11 19	10 55	10 31	10 15	9 41	9 15		10			
	20	12 12	11 50	11 28	11 05	10 43	10 21	9 58	9 36	9 13	8 50	8 28		20			
	30	11 02	10 42	10 22	10 02	9 41	9 21	9 01	8 40	8 20	8 00	7 39		30			
	40	9 50	9 33	9 15	8 56	8 39	8 21	8 03	7 45	7 26	7 08	6 49		40			
	50	8 39	8 23	8 07	7 52	7 35	7 20	7 04	6 48	6 32	6 16	5 59		50			
11	00	7 26	7 13	6 59	6 46	6 32	6 18	6 05	5 50	5 36	5 22	5 09	11	00			
	10	6 12	6 01	5 51	5 39	5 28	5 16	5 04	4 53	4 42	4 30	4 18		10			
	20	4 59	4 50	4 41	4 31	4 23	4 14	4 04	3 55	3 46	3 36	3 27		20			
	30	3 45	3 37	3 31	3 24	3 17	3 10	3 03	2 56	2 50	2 43	2 36		30			
	40	2 30	2 26	2 21	2 16	2 11	2 07	2 03	1 58	1 53	1 49	1 44		40			
	50	1 15	1 13	1 11	1 08	1 06	1 04	1 01	0 58	0 56	0 54	0 52		50			
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00			

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 30°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	159 03	155 29	150 31	143 10	131 51	114 03	89 22	64 28	46 20	34 46	27 16	22 12		10
	20	142 15	137 15	130 58	123 06	113 21	101 42	88 45	75 40	63 43	53 35	45 22	38 49		20
	30	130 10	123 09	119 20	112 38	105 07	96 51	88 07	79 19	70 48	62 56	55 54	49 42		30
	40	121 35	117 01	111 58	106 24	100 25	94 04	87 30	80 51	74 19	68 03	62 10	56 43		40
	50	115 21	111 17	106 54	102 13	97 18	92 09	86 52	81 33	76 14	71 04	66 05	61 21		50
1	00	110 38	107 00	103 11	99 09	94 58	90 38	86 14	81 47	77 19	72 56	68 38	64 30	1	00
	10	106 53	103 39	100 16	96 45	93 07	89 24	85 36	81 46	77 56	74 07	70 22	66 42		10
	20	103 49	100 55	97 54	94 46	91 34	88 17	84 58	81 36	78 14	74 51	71 32	68 14		20
	30	101 17	98 38	95 54	93 06	90 13	87 17	84 19	81 19	78 18	75 18	72 18	69 19		30
	40	99 05	96 39	94 09	91 37	89 01	86 21	83 40	80 58	78 14	75 30	72 47	70 04		40
	50	97 09	94 55	92 38	90 16	87 54	85 29	83 01	80 33	78 04	75 34	73 03	70 34		50
2	00	95 25	93 20	91 12	89 04	86 52	84 38	82 22	80 05	77 47	75 30	73 11	70 53	2	00
	10	93 51	91 55	89 55	87 55	85 52	83 48	81 42	79 36	77 28	75 19	73 11	71 01		10
	20	92 24	90 35	88 43	86 50	84 55	83 00	81 02	79 04	77 05	75 05	73 05	71 04		20
	30	91 03	89 20	87 35	85 49	84 01	82 13	80 22	78 30	76 39	74 46	72 53	70 59		30
	40	89 46	88 09	86 30	84 50	83 07	81 25	79 41	77 56	76 11	74 25	72 38	70 50		40
	50	88 34	87 01	85 27	83 52	82 15	80 39	79 00	77 20	75 40	74 00	72 19	70 36		50
3	00	87 24	85 56	84 26	82 56	81 25	79 51	78 18	76 44	75 08	73 33	71 57	70 20	3	00
	10	86 17	84 53	83 27	82 00	80 33	79 04	77 35	76 06	74 35	73 04	71 31	69 59		10
	20	85 13	83 51	82 30	81 06	79 42	78 18	76 53	75 26	74 00	72 32	71 04	69 35		20
	30	84 10	82 52	81 32	80 12	78 52	77 31	76 09	74 46	73 23	71 59	70 35	69 10		30
	40	83 07	81 52	80 36	79 19	78 02	76 43	75 25	74 05	72 45	71 25	70 03	68 42		40
	50	82 07	80 53	79 40	78 25	77 11	75 56	74 40	73 23	72 05	70 48	69 30	68 11		50
4	00	81 07	79 56	78 45	77 33	76 21	75 08	73 54	72 40	71 25	70 10	68 54	67 38	4	00
	10	80 07	78 58	77 49	76 40	75 29	74 19	73 07	71 56	70 43	69 30	68 17	67 04		10
	20	79 07	78 01	76 53	75 46	74 38	73 29	72 20	71 10	70 00	68 50	67 38	66 27		20
	30	78 07	77 03	75 57	74 52	73 46	72 39	71 31	70 24	69 15	68 07	66 58	65 49		30
	40	77 09	76 05	75 02	73 57	72 53	71 48	70 42	69 36	68 30	67 23	66 16	65 08		40
	50	76 09	75 07	74 05	73 03	72 00	70 56	69 52	68 48	67 44	66 38	65 32	64 27		50
5	00	75 09	74 08	73 08	72 06	71 04	70 03	69 00	67 58	66 55	65 52	64 48	63 44	5	00
	10	74 08	73 09	72 09	71 10	70 09	69 09	68 08	67 07	66 05	65 04	64 01	62 58		10
	20	73 07	72 09	71 11	70 12	69 13	68 14	67 14	66 15	65 15	64 13	63 12	62 11		20
	30	72 06	71 09	70 11	69 14	68 16	67 18	66 19	65 20	64 21	63 23	62 23	61 22		30
	40	71 05	70 07	69 10	68 14	67 17	66 21	65 23	64 25	63 28	62 29	61 31	60 32		40
	50	70 00	69 04	68 09	67 14	66 18	65 22	64 25	63 29	62 32	61 35	60 37	59 40		50
6	00	68 55	68 01	67 06	66 11	65 17	64 21	63 26	62 30	61 35	60 39	59 43	58 46	6	00
	10	67 49	66 56	66 02	65 08	64 14	63 20	62 25	61 31	60 36	59 41	58 46	57 50		10
	20	66 42	65 49	64 56	64 03	63 10	62 17	61 23	60 29	59 36	58 41	57 47	56 53		20
	30	65 33	64 41	63 48	62 57	62 04	61 11	60 19	59 25	58 33	57 39	56 46	55 53		30
	40	64 22	63 31	62 39	61 48	60 56	60 05	59 13	58 20	57 28	56 36	55 43	54 52		40
	50	63 10	62 20	61 29	60 38	59 47	58 56	58 05	57 13	56 22	55 31	54 39	53 48		50
7	00	61 56	61 06	60 15	59 26	58 36	57 45	56 55	56 04	55 14	54 23	53 32	52 43	7	00
	10	60 40	59 50	59 01	58 11	57 21	56 33	55 42	54 52	54 04	53 14	52 23	51 34		10
	20	59 21	58 32	57 43	56 55	56 06	55 17	54 28	53 40	52 51	52 02	51 13	50 24		20
	30	58 01	57 13	56 24	55 36	54 48	54 00	53 11	52 24	51 35	50 47	49 59	49 11		30
	40	56 39	55 50	55 03	54 15	53 27	52 40	51 52	51 05	50 18	49 31	48 44	47 57		40
	50	55 12	54 25	53 37	52 51	52 04	51 18	50 31	49 44	48 59	48 12	47 25	46 39		50
8	00	53 43	52 57	52 10	51 24	50 38	49 52	49 06	48 21	47 35	46 50	46 04	45 19	8	00
	10	52 12	51 26	50 40	49 55	49 10	48 25	47 39	46 55	46 10	45 25	44 41	43 56		10
	20	50 37	49 52	49 07	48 22	47 38	46 54	46 09	45 26	44 42	43 58	43 14	42 31		20
	30	49 00	48 15	47 30	46 46	46 03	45 20	44 36	43 54	43 11	42 28	41 45	41 03		30
	40	47 18	46 34	45 50	45 08	44 25	43 43	43 00	42 19	41 36	40 56	40 14	39 33		40
	50	45 33	44 50	44 08	43 25	42 43	42 02	41 21	40 40	39 59	39 20	38 39	38 00		50
9	00	43 44	43 02	42 20	41 39	40 58	40 18	39 38	38 59	38 19	37 40	37 01	36 22	9	00
	10	41 51	41 11	40 30	39 50	39 11	38 31	37 52	37 13	36 36	35 58	35 20	34 43		10
	20	39 54	39 15	38 35	37 57	37 18	36 41	36 03	35 26	34 50	34 13	33 37	33 01		20
	30	37 53	37 15	36 37	36 00	35 23	34 47	34 10	33 34	32 59	32 24	31 50	31 16		30
	40	35 49	35 11	34 35	33 59	33 24	32 49	32 14	31 40	31 06	30 33	29 59	29 27		40
	50	33 39	33 03	32 29	31 55	31 20	30 47	30 14	29 42	29 10	28 38	28 07	27 35		50
10	00	31 25	30 51	30 18	29 46	29 13	28 42	28 11	27 41	27 10	26 41	26 11	25 41	10	00
	10	29 07	28 35	28 04	27 33	27 03	26 33	26 04	25 35	25 07	24 39	24 11	23 44		10
	20	26 45	26 15	25 46	25 18	24 50	24 23	23 55	23 28	23 01	22 36	22 10	21 45		20
	30	24 18	23 51	23 24	22 58	22 32	22 07	21 42	21 17	20 53	20 29	20 06	19 43		30
	40	21 47	21 23	20 58	20 34	20 11	19 48	19 25	19 03	18 42	18 20	17 59	17 38		40
	50	19 13	18 51	18 29	18 08	17 48	17 27	17 07	16 47	16 27	16 09	15 49	15 31		50
11	00	16 36	16 16	15 57	15 38	15 20	15 03	14 45	14 27	14 11	13 54	13 38	13 22	11	00
	10	13 55	13 39	13 22	13 06	12 52	12 36	12 21	12 07	11 52	11 36	11 24	11 12		10
	20	11 12	10 58	10 45	10 32	10 20	10 08	9 56	9 44	9 32	9 21	9 10	8 58		20
	30	8 25	8 15	8 06	7 56	7 47	7 37	7 28	7 19	7 10	7 02	6 54	6 45		30
	40	5 38	5 31	5 25	5 18	5 12	5 06	4 59	4 53	4 48	4 42	4 37	4 31		40
	50	2 49	2 46	2 43	2 39	2 37	2 33	2 30	2 27	2 24	2 22	2 18	2 15		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 30°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.													h.	m.
		0	1	2	3	4	5	6	7	8	9	10	11		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	18 36	15 54	13 50	12 12	10 53	9 46	8 51	8 03	7 23	6 47	6 16	5 48	1	00
	20	33 37	29 26	26 01	23 13	20 53	18 53	17 11	15 43	14 27	13 20	12 20	11 27		10
	30	44 21	39 45	35 49	32 25	29 28	26 55	24 41	22 42	20 57	19 25	18 01	16 46		20
	40	51 46	47 19	43 18	39 44	36 33	33 42	31 09	28 51	26 48	24 56	23 14	21 42		30
	50	56 55	52 46	48 57	45 26	42 13	39 17	36 35	34 07	31 52	29 48	27 54	26 09		40
1	00	60 32	56 45	53 12	49 51	46 43	43 47	41 05	38 34	36 13	34 03	32 01	30 08	1	50
	10	63 08	59 42	56 24	53 16	50 17	47 27	44 48	42 17	39 55	37 42	35 36	33 39		10
	20	65 01	61 53	58 50	55 55	53 06	50 24	47 49	45 21	43 01	40 48	38 42	36 42		20
	30	66 23	63 31	60 42	57 59	55 20	52 46	50 18	47 54	45 37	43 27	41 21	39 21		30
	40	67 23	64 45	62 08	59 35	57 05	54 40	52 18	50 01	47 49	45 41	43 36	41 37		40
	50	68 06	65 38	63 12	60 49	58 29	56 11	53 56	51 45	49 37	47 32	45 31	43 35		50
2	00	68 34	66 17	64 01	61 48	59 35	57 24	55 16	53 10	51 06	49 06	47 09	45 15	2	00
	10	68 53	66 45	64 37	62 31	60 25	58 21	56 20	54 19	52 21	50 24	48 31	46 39		10
	20	69 03	67 03	65 03	63 03	61 04	59 06	57 10	55 15	53 21	51 30	49 39	47 51		20
	30	69 06	67 12	65 18	63 25	61 32	59 40	57 49	55 59	54 10	52 23	50 36	48 50		30
	40	69 02	67 15	65 27	63 40	61 52	60 06	58 20	56 33	54 48	53 05	51 22	49 40		40
	50	68 55	67 12	65 29	63 48	62 05	60 22	58 40	56 59	55 18	53 38	51 57	50 21		50
3	00	68 42	67 05	65 27	63 49	62 11	60 33	58 56	57 17	55 40	54 04	52 28	50 52	3	00
	10	68 26	66 52	65 19	63 46	62 12	60 37	59 03	57 29	55 56	54 23	52 50	51 17		10
	20	68 07	66 37	65 07	63 38	62 07	60 37	59 06	57 36	56 06	54 35	53 05	51 36		20
	30	67 44	66 18	64 52	63 26	61 59	60 31	59 04	57 37	56 09	54 42	53 13	51 48		30
	40	67 19	65 56	64 33	63 10	61 46	60 21	58 58	57 33	56 09	54 45	53 19	51 55		40
	50	66 49	65 31	64 11	62 50	61 30	60 08	58 47	57 25	56 03	54 41	53 19	51 57		50
4	00	66 21	65 04	63 46	62 29	61 10	59 51	58 33	57 13	55 55	54 35	53 15	51 55	4	00
	10	65 49	64 34	63 19	62 04	60 47	59 31	58 15	56 58	55 41	54 24	53 06	51 49		10
	20	65 14	64 03	62 50	61 36	60 22	59 09	57 54	56 39	55 25	54 09	52 54	51 38		20
	30	64 39	63 28	62 17	61 06	59 54	58 42	57 30	56 18	55 05	53 52	52 39	51 25		30
	40	64 06	62 52	61 43	60 34	59 25	58 14	57 04	55 53	54 42	53 31	52 19	51 07		40
	50	63 20	62 14	61 06	59 59	58 52	57 43	56 34	55 26	54 16	53 07	51 57	50 47		50
5	00	62 38	61 31	60 28	59 23	58 16	57 10	56 03	54 56	53 48	52 41	51 32	50 23	5	00
	10	61 55	60 51	59 47	58 43	57 38	56 33	55 28	54 23	53 17	52 11	51 04	49 57		10
	20	61 10	60 08	59 04	58 03	56 59	55 55	54 52	53 48	52 44	51 39	50 34	49 29		20
	30	60 22	59 22	58 20	57 19	56 17	55 15	54 13	53 11	52 08	51 05	50 01	48 57		30
	40	59 33	58 34	57 33	56 34	55 34	54 33	53 32	52 31	51 29	50 27	49 25	48 23		40
	50	58 42	57 44	56 46	55 47	54 47	53 48	52 49	51 49	50 48	49 49	48 48	47 46		50
6	00	57 50	56 52	55 54	54 58	54 00	53 01	52 03	51 04	50 05	49 06	48 07	47 07	6	00
	10	56 55	55 58	55 03	54 07	53 09	52 12	51 15	50 18	49 20	48 23	47 24	46 25		10
	20	55 59	55 04	54 08	53 13	52 17	51 22	50 26	49 30	48 33	47 37	46 39	45 42		20
	30	54 59	54 06	53 12	52 18	51 23	50 28	49 33	48 39	47 44	46 47	45 52	44 56		30
	40	53 59	53 06	52 13	51 20	50 26	49 32	48 39	47 46	46 51	45 57	45 02	44 08		40
	50	52 56	52 04	51 12	50 21	49 28	48 35	47 43	46 50	45 57	45 04	44 11	43 17		50
7	00	51 52	51 00	50 09	49 18	48 27	47 35	46 44	45 52	45 00	44 08	43 16	42 24	7	00
	10	50 44	49 55	49 04	48 14	47 23	46 33	45 43	44 52	44 02	43 11	42 19	41 28		10
	20	49 35	48 46	47 57	47 08	46 18	45 29	44 40	43 50	43 01	42 11	41 21	40 31		20
	30	48 24	47 35	46 47	45 58	45 11	44 22	43 34	42 45	41 58	41 09	40 20	39 31		30
	40	47 09	46 23	45 35	44 49	44 01	43 14	42 27	41 39	40 52	40 05	39 17	38 29		40
	50	45 53	45 07	44 21	43 35	42 48	42 03	41 16	40 30	39 45	38 58	38 12	37 25		50
8	00	44 34	43 49	43 03	42 19	41 34	40 49	40 04	39 19	38 34	37 48	37 04	36 19	8	00
	10	43 12	42 29	41 44	41 01	40 17	39 32	38 49	38 05	37 22	36 38	35 54	35 10		10
	20	41 48	41 05	40 23	39 40	38 57	38 15	37 31	36 49	36 06	35 24	34 43	33 59		20
	30	40 21	39 40	38 57	38 17	37 35	36 53	36 12	35 31	34 49	34 08	33 26	32 46		30
	40	38 52	38 12	37 30	36 50	36 10	35 29	34 50	34 10	33 30	32 50	32 11	31 30		40
	50	37 20	36 40	36 01	35 22	34 42	34 03	33 25	32 46	32 07	31 30	30 51	30 13		50
9	00	35 44	35 06	34 27	33 50	33 13	32 34	31 57	31 21	30 43	30 06	29 30	28 53	9	00
	10	34 06	33 29	32 53	32 17	31 40	31 04	30 28	29 52	29 16	28 41	28 06	27 31		10
	20	32 25	31 49	31 15	30 40	30 05	29 31	28 56	28 21	27 48	27 14	26 40	26 07		20
	30	30 41	30 07	29 34	29 01	28 27	27 55	27 21	26 49	26 17	25 44	25 12	24 40		30
	40	28 54	28 22	27 50	27 19	26 47	26 15	25 45	25 13	24 43	24 13	23 43	23 12		40
	50	27 04	26 35	26 04	25 35	25 04	24 35	24 06	23 37	23 08	22 39	22 10	21 42		50
10	00	25 13	24 44	24 15	23 47	23 19	22 52	22 24	21 57	21 30	21 04	20 36	20 10	10	00
	10	23 18	22 50	22 24	21 58	21 32	21 06	20 40	20 16	19 50	19 26	19 01	18 36		10
	20	21 20	20 55	20 31	20 06	19 43	19 18	18 56	18 32	18 09	17 46	17 23	17 00		20
	30	19 19	18 57	18 34	18 13	17 50	17 29	17 08	16 47	16 26	16 05	15 44	15 23		30
	40	17 17	16 57	16 36	16 17	15 57	15 38	15 19	15 00	14 41	14 21	14 03	13 45		40
	50	15 13	14 54	14 36	14 20	14 02	13 45	13 28	13 10	12 54	12 38	12 21	12 05		50
11	00	13 06	12 50	12 35	12 20	12 05	11 50	11 35	11 20	11 06	10 52	10 37	10 24	11	00
	10	10 58	10 44	10 31	10 19	10 06	9 54	9 41	9 29	9 17	9 05	8 53	8 41		10
	20	8 48	8 38	8 27	8 16	8 06	7 57	7 46	7 37	7 27	7 18	7 07	6 58		20
	30	6 37	6 29	6 21	6 14	6 06	5 58	5 51	5 43	5 36	5 29	5 21	5 14		30
	40	4 26	4 20	4 14	4 10	4 04	3 59	3 55	3 49	3 44	3 39	3 35	3 30		40
	50	2 12	2 10	2 08	2 05	2 02	2 00	1 57	1 54	1 52	1 50	1 48	1 45		50
	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 30°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 23	5 02	4 41	4 22	4 06	3 50	3 37	3 23	3 10	3 00	2 49	2 39		10
	20	10 38	9 55	9 16	8 40	8 08	7 38	7 09	6 44	6 20	5 58	5 36	5 16		20
	30	15 39	14 37	13 41	12 49	12 02	11 18	10 37	9 59	9 24	8 52	8 21	7 51		30
	40	20 19	19 01	17 50	16 45	15 44	14 49	13 56	13 08	12 23	11 40	11 00	10 22		40
	50	24 33	23 05	21 42	20 26	19 14	18 08	17 06	16 08	15 13	14 22	13 33	12 48		50
1	00	28 23	26 46	25 14	23 49	22 28	21 14	20 03	18 57	17 54	16 56	16 00	15 06	1	00
	10	31 48	30 04	28 27	26 55	25 28	24 05	22 48	21 35	20 26	19 21	18 19	17 18		10
	20	34 48	33 01	31 19	29 43	28 11	26 43	25 20	24 02	22 47	21 36	20 28	19 23		20
	30	37 27	35 36	33 52	32 13	30 38	29 06	27 40	26 17	24 57	23 42	22 30	21 20		30
	40	39 43	37 54	36 08	34 26	32 49	31 15	29 47	28 21	26 58	25 39	24 23	23 09		40
	50	41 42	39 52	38 07	36 25	34 47	33 11	31 40	30 12	28 47	27 25	26 06	24 49		50
2	00	43 24	41 36	39 51	38 10	36 31	34 55	33 23	31 53	30 27	29 02	27 41	26 22	2	00
	10	44 51	43 05	41 22	39 40	38 03	36 27	34 54	33 24	31 55	30 30	29 08	27 47		10
	20	46 05	44 21	42 39	41 00	39 23	37 48	36 15	34 44	33 15	31 50	30 26	29 04		20
	30	47 08	45 26	43 46	42 09	40 32	38 58	37 26	35 56	34 27	33 01	31 36	30 13		30
	40	48 00	46 21	44 43	43 07	41 33	39 59	38 28	36 59	35 30	34 04	32 40	31 16		40
	50	48 43	47 06	45 31	43 57	42 24	40 52	39 22	37 53	36 25	34 59	33 35	32 11		50
3	00	49 18	47 44	46 11	44 39	43 08	41 37	40 09	38 40	37 14	35 48	34 25	33 01	3	00
	10	49 45	48 14	46 44	45 14	43 44	42 16	40 48	39 22	37 56	36 31	35 08	33 45		10
	20	50 06	48 38	47 09	45 41	44 13	42 47	41 20	39 55	38 30	37 07	35 44	34 22		20
	30	50 21	48 54	47 29	46 03	44 37	43 12	41 47	40 23	39 00	37 38	36 16	34 54		30
	40	50 31	49 06	47 42	46 19	44 55	43 31	42 09	40 46	39 24	38 03	36 42	35 21		40
	50	50 35	49 13	47 51	46 29	45 08	43 46	42 25	41 04	39 42	38 22	37 03	35 43		50
4	00	50 35	49 15	47 55	46 35	45 15	43 55	42 36	41 16	39 57	38 38	37 20	36 01	4	00
	10	50 39	49 13	47 55	46 37	45 18	44 00	42 42	41 24	40 06	38 49	37 32	36 14		10
	20	50 22	49 06	47 50	46 34	45 17	44 01	42 45	41 29	40 12	38 55	37 39	36 23		20
	30	50 10	48 56	47 42	46 27	45 13	43 58	42 43	41 28	40 13	38 58	37 43	36 28		30
	40	49 55	48 43	47 30	46 17	45 04	43 51	42 37	41 24	40 10	38 57	37 43	36 29		40
	50	49 36	48 26	47 15	46 04	44 52	43 41	42 29	41 17	40 04	38 52	37 40	36 27		50
5	00	49 14	48 06	46 57	45 47	44 37	43 26	42 16	41 06	39 54	38 44	37 33	36 21	5	00
	10	48 50	47 43	46 35	45 26	44 18	43 10	42 01	40 52	39 42	38 33	37 23	36 12		10
	20	48 23	47 17	46 11	45 04	43 57	42 50	41 43	40 35	39 26	38 18	37 10	36 01		20
	30	47 52	46 48	45 44	44 38	43 32	42 27	41 20	40 14	39 07	38 01	36 53	35 46		30
	40	47 20	46 17	45 13	44 10	43 06	42 01	40 56	39 51	38 46	37 40	36 35	35 28		40
	50	46 44	45 43	44 41	43 38	42 35	41 32	40 29	39 26	38 22	37 18	36 14	35 09		50
6	00	46 07	45 07	44 06	43 05	42 04	41 02	40 00	38 57	37 54	36 52	35 49	34 45	6	00
	10	45 27	44 28	43 28	42 29	41 29	40 28	39 27	38 26	37 25	36 24	35 21	34 20		10
	20	44 45	43 47	42 48	41 50	40 51	39 52	38 53	37 53	36 53	35 53	34 52	33 51		20
	30	43 59	43 03	42 06	41 09	40 11	39 14	38 16	37 17	36 18	35 19	34 20	33 20		30
	40	43 12	42 17	41 21	40 26	39 29	38 33	37 36	36 39	35 42	34 44	33 46	32 47		40
	50	42 22	41 29	40 34	39 40	38 45	37 50	36 55	35 59	35 02	34 06	33 10	32 13		50
7	00	41 31	40 38	39 45	38 52	37 58	37 04	36 10	35 15	34 21	33 26	32 31	31 35	7	00
	10	40 36	39 45	38 53	38 01	37 09	36 16	35 23	34 30	33 37	32 43	31 50	30 55		10
	20	39 41	38 50	38 00	37 09	36 18	35 27	34 35	33 43	32 51	31 59	31 07	30 13		20
	30	38 41	37 53	37 03	36 14	35 25	34 35	33 45	32 54	32 03	31 13	30 21	29 30		30
	40	37 42	36 53	36 05	35 17	34 29	33 40	32 52	32 02	31 13	30 24	29 34	28 45		40
	50	36 38	35 52	35 05	34 18	33 31	32 43	31 57	31 09	30 21	29 33	28 45	27 56		50
8	00	35 32	34 48	34 03	33 17	32 31	31 45	31 00	30 13	29 27	28 41	27 54	27 07	8	00
	10	34 26	33 41	32 58	32 14	31 29	30 44	30 00	29 16	28 30	27 45	27 01	26 15		10
	20	33 16	32 34	31 51	31 08	30 25	29 42	28 59	28 16	27 32	26 49	26 05	25 22		20
	30	32 04	31 23	30 41	30 01	29 19	28 37	27 56	27 15	26 32	25 51	25 09	24 26		30
	40	30 50	30 10	29 31	28 51	28 11	27 30	26 51	26 11	25 30	24 50	24 10	23 30		40
	50	29 34	28 56	28 18	27 40	27 01	26 22	25 44	25 05	24 26	23 48	23 09	22 30		50
9	00	28 15	27 39	27 02	26 26	25 48	25 11	24 35	23 58	23 21	22 44	22 07	21 30	9	00
	10	26 55	26 20	25 45	25 10	24 35	23 59	23 24	22 49	22 14	21 39	21 03	20 28		10
	20	25 33	25 00	24 26	23 53	23 20	22 46	22 12	21 39	21 06	20 32	19 58	19 24		20
	30	24 08	23 37	23 05	22 33	22 02	21 29	20 59	20 27	19 54	19 23	18 51	18 19		30
	40	22 41	22 11	21 42	21 12	20 42	20 12	19 43	19 13	18 43	18 12	17 43	17 13		40
	50	21 14	20 45	20 17	19 49	19 21	18 53	18 25	17 57	17 29	17 01	16 33	16 05		50
10	00	19 44	19 17	18 50	18 24	17 58	17 32	17 07	16 40	16 14	15 48	15 22	14 57	10	00
	10	18 11	17 47	17 22	16 58	16 33	16 09	15 46	15 21	14 58	14 34	14 10	13 45		10
	20	16 38	16 15	15 53	15 31	15 08	14 46	14 24	14 03	13 40	13 18	12 56	12 34		20
	30	15 02	14 43	14 22	14 02	13 42	13 22	13 02	12 41	12 22	12 02	11 42	11 22		30
	40	13 26	13 07	12 50	12 32	12 14	11 56	11 38	11 20	11 02	10 44	10 26	10 08		40
	50	11 49	11 32	11 16	11 00	10 44	10 28	10 13	9 57	9 41	9 26	9 10	8 54		50
11	00	10 09	9 55	9 41	9 28	9 15	9 01	8 47	8 33	8 20	8 06	7 53	7 39	11	00
	10	8 29	8 17	8 07	7 55	7 43	7 32	7 21	7 10	6 58	6 47	6 35	6 24		10
	20	6 46	6 40	6 30	6 21	6 12	6 02	5 53	5 44	5 35	5 26	5 17	5 08		20
	30	5 07	5 00	4 53	4 46	4 39	4 32	4 25	4 19	4 12	4 05	3 58	3 51		30
	40	3 25	3 20	3 16	3 11	3 06	3 02	2 57	2 53	2 48	2 44	2 39	2 34		40
	50	1 43	1 40	1 38	1 36	1 33	1 31	1 29	1 26	1 24	1 22	1 20	1 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 30°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	°	′	°	′	°	′	°	′	°	′	°	′	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	2 30	2 21	2 13	2 05	1 58	1 50	1 43	1 38	1 31	1 26	1 20	1 15	1	10		
	20	4 58	4 41	4 25	4 08	3 54	3 40	3 27	3 15	3 02	2 50	2 39	2 29	2	20		
	30	7 24	6 58	6 34	6 12	5 50	5 29	5 09	4 50	4 31	4 14	3 57	3 42	3	30		
	40	9 47	9 14	8 41	8 11	7 42	7 15	6 49	6 24	6 00	5 36	5 15	5 00	4	40		
	50	12 05	11 24	10 45	10 08	9 33	8 59	8 27	7 57	7 27	6 59	6 32	6 08	5	50		
1	00	14 17	13 29	12 43	12 00	11 19	10 40	10 03	9 26	8 51	8 18	7 46	7 15	1	00		
	10	16 23	15 29	14 38	13 49	13 02	12 18	11 34	10 53	10 14	9 35	8 59	8 24	1	10		
	20	18 22	17 23	16 27	15 32	14 41	13 51	13 03	12 17	11 33	10 50	10 09	9 30	2	20		
	30	20 14	19 10	18 10	17 11	16 15	15 20	14 28	13 38	12 50	12 02	11 17	10 33	2	30		
	40	21 59	20 52	19 47	18 44	17 44	16 45	15 49	14 55	14 03	13 12	12 22	11 33	3	40		
	50	23 37	22 26	21 17	20 11	19 07	18 05	17 06	16 08	15 12	14 17	13 23	12 30	3	50		
2	00	25 07	23 53	22 41	21 32	20 26	19 21	18 17	17 17	16 18	15 20	14 25	13 31	2	00		
	10	26 29	25 14	24 00	22 48	21 39	20 31	19 25	18 22	17 20	16 19	15 21	14 26	2	10		
	20	27 44	26 27	25 11	23 58	22 47	21 37	20 29	19 23	18 18	17 15	16 14	15 18	2	20		
	30	28 54	27 35	26 18	25 03	23 50	22 36	21 28	20 20	19 12	18 07	17 04	16 07	3	30		
	40	29 56	28 35	27 18	26 01	24 47	23 34	22 22	21 12	20 04	18 56	17 50	16 50	3	40		
	50	30 51	29 31	28 11	26 54	25 39	24 25	23 12	22 01	20 50	19 41	18 34	17 30	3	50		
3	00	31 40	30 19	28 01	27 43	26 27	25 12	23 57	22 44	21 33	20 23	19 14	18 07	3	00		
	10	32 24	31 04	29 44	28 26	27 09	25 54	24 38	23 25	22 13	21 01	19 51	18 42	4	10		
	20	33 01	31 41	30 22	29 04	27 47	26 31	25 16	24 02	22 48	21 36	20 25	19 16	4	20		
	30	33 34	32 15	30 55	29 37	28 20	27 04	25 48	24 34	23 20	22 07	20 56	19 46	4	30		
	40	34 01	32 43	31 24	30 06	28 50	27 33	26 17	25 02	23 48	22 35	21 22	20 12	4	40		
	50	34 25	33 06	31 48	30 31	29 14	27 58	26 43	25 27	24 13	23 00	21 47	20 35	4	50		
4	00	34 43	33 26	32 08	30 51	29 35	28 19	27 03	25 48	24 35	23 21	22 08	20 94	4	00		
	10	34 57	33 41	32 24	31 08	29 52	28 37	27 22	26 08	24 53	23 39	22 26	21 12	5	10		
	20	35 07	33 51	32 35	31 20	30 05	28 51	27 36	26 21	25 08	23 54	22 41	21 26	5	20		
	30	35 13	33 59	32 44	31 29	30 15	29 01	27 47	26 33	25 20	24 06	22 53	21 38	5	30		
	40	35 16	34 02	32 48	31 34	30 21	29 08	27 54	26 41	25 28	24 16	23 03	21 48	5	40		
	50	35 14	34 03	32 50	31 37	30 24	29 12	27 59	26 47	25 34	24 22	23 10	21 55	5	50		
5	00	35 10	33 59	32 48	31 36	30 25	29 12	28 00	26 49	25 38	24 26	23 14	22 02	5	00		
	10	35 03	33 53	32 42	31 32	30 22	29 11	27 59	26 49	25 37	24 27	23 15	22 03	6	10		
	20	34 52	33 43	32 34	31 24	30 15	29 05	27 55	26 45	25 35	24 25	23 15	22 04	6	20		
	30	34 39	33 31	32 22	31 14	30 06	28 58	27 49	26 40	25 30	24 20	23 10	22 00	6	30		
	40	34 22	33 16	32 09	31 02	29 55	28 47	27 39	26 31	25 23	24 15	23 06	21 55	6	40		
	50	34 03	32 58	31 52	30 46	29 40	28 34	27 27	26 20	25 13	24 06	22 58	21 48	6	50		
6	00	33 42	32 38	31 32	30 28	29 24	28 19	27 13	26 07	25 00	23 54	22 48	21 42	6	00		
	10	33 17	32 14	31 11	30 08	29 05	28 01	26 56	25 51	24 47	23 41	22 36	21 30	7	10		
	20	32 50	31 49	30 47	29 44	28 42	27 40	26 37	25 33	24 30	23 26	22 21	21 15	7	20		
	30	32 21	31 21	30 20	29 20	28 19	27 17	26 15	25 13	24 10	23 07	22 04	21 00	7	30		
	40	31 50	30 51	29 51	28 51	27 52	26 52	25 51	24 51	23 50	22 48	21 45	20 42	7	40		
	50	31 16	30 18	29 20	28 22	27 24	26 25	25 26	24 27	23 27	22 26	21 25	20 24	7	50		
7	00	30 40	29 44	28 47	27 50	26 54	25 56	24 58	24 00	23 01	22 02	21 03	20 04	7	00		
	10	30 01	29 07	28 11	27 16	26 21	25 25	24 28	23 31	22 34	21 37	20 39	19 40	8	10		
	20	29 21	28 28	27 34	26 40	25 47	24 52	23 57	23 01	22 05	21 09	20 13	19 16	8	20		
	30	28 38	27 47	26 54	26 02	25 10	24 16	23 23	22 29	21 35	20 41	19 46	18 50	8	30		
	40	27 54	27 04	26 13	25 22	24 32	23 40	22 47	21 55	21 03	20 10	19 16	18 21	8	40		
	50	27 08	26 19	25 30	24 41	23 51	23 01	22 11	21 20	20 29	19 37	18 46	17 53	8	50		
8	00	26 19	25 32	24 45	23 57	23 09	22 20	21 31	20 43	19 54	19 03	18 13	17 21	8	00		
	10	25 30	24 44	23 58	23 12	22 25	21 39	20 51	20 04	19 16	18 27	17 40	16 50	9	10		
	20	24 38	23 53	23 09	22 25	21 40	20 54	20 09	19 24	18 38	17 51	17 05	16 18	9	20		
	30	23 44	23 02	22 19	21 36	20 53	20 09	19 25	18 42	17 58	17 13	16 28	15 43	9	30		
	40	22 49	22 08	21 27	20 46	20 05	19 23	18 41	17 59	17 16	16 33	15 50	15 07	9	40		
	50	21 51	21 13	20 33	19 54	19 14	18 34	17 54	17 14	16 33	15 52	15 10	14 28	9	50		
9	00	20 53	20 16	19 38	18 00	17 22	16 44	16 05	15 27	14 49	14 10	13 30	12 50	9	00		
	10	19 52	19 17	18 41	18 05	17 29	16 53	16 16	15 40	15 03	14 26	13 49	13 11	10	10		
	20	18 51	18 17	17 43	17 09	16 35	16 01	15 26	14 52	14 17	13 41	13 06	12 30	10	20		
	30	17 48	17 16	16 44	16 12	15 39	15 06	14 34	14 02	13 28	12 55	12 22	11 48	10	30		
	40	16 43	16 13	15 42	15 12	14 42	14 12	13 41	13 11	12 39	12 09	11 38	11 07	10	40		
	50	15 38	15 10	14 41	14 13	13 45	13 17	12 47	12 18	11 50	11 21	10 51	10 21	10	50		
10	00	14 30	14 04	13 38	13 11	12 46	12 19	11 53	11 26	10 59	10 32	10 05	9 37	10	00		
	10	13 22	12 58	12 33	12 09	11 46	11 21	10 56	10 32	10 08	9 42	9 17	8 52	11	10		
	20	12 13	11 51	11 28	11 06	10 44	10 22	9 59	9 37	9 14	8 52	8 29	8 07	11	20		
	30	11 02	10 43	10 22	10 02	9 43	9 22	9 02	8 42	8 22	8 01	7 40	7 19	11	30		
	40	9 50	9 33	9 15	8 57	8 40	8 22	8 04	7 45	7 27	7 09	6 50	6 30	11	40		
	50	8 39	8 24	8 07	7 52	7 37	7 21	7 05	6 49	6 33	6 17	6 00	5 44	11	50		
11	00	7 26	7 13	6 59	6 45	6 32	6 19	6 05	5 52	5 38	5 24	5 10	4 56	11	00		
	10	6 12	6 02	5 50	5 39	5 28	5 17	5 05	4 54	4 42	4 31	4 19	4 07	12	10		
	20	4 59	4 50	4 41	4 32	4 23	4 13	4 04	3 55	3 46	3 36	3 26	3 16	12	20		
	30	3 45	3 38	3 31	3 24	3 17	3 11	3 04	2 57	2 50	2 43	2 36	2 28	12	30		
	40	2 30	2 26	2 20	2 16	2 12	2 07	2 03	1 58	1 54	1 49	1 44	1 39	12	40		
	50	1 15	1 12	1 10	1 08	1 06	1 04	1 01	0 59	0 57	0 54	0 52	0 50	12	50		
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00		

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 31°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 31°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h. m.	0 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	h. m.	0 00
	10	161 50	159 12	155 40	150 44	143 25	132 06	114 16	89 21	64 14	40 00	34 27	26 59	1	00
	20	146 28	142 27	137 28	131 12	123 20	113 32	101 48	88 43	75 31	63 26	53 14	45 01		10
	30	134 40	130 22	125 20	119 31	113 48	105 13	95 53	88 04	79 10	70 35	62 39	55 32		20
	40	125 52	121 46	117 10	112 05	106 30	100 28	94 03	87 25	80 43	74 07	67 46	61 50		30
	50	119 15	115 28	111 23	106 58	102 16	97 18	92 06	86 46	81 23	76 02	70 49	65 47		40
1	00	114 07	110 43	107 04	103 13	99 09	94 56	90 35	86 07	81 37	77 08	72 41	68 22	1	50
	10	110 02	106 56	103 40	100 16	96 43	93 04	89 18	85 26	81 36	77 43	73 52	70 04		00
	20	106 40	103 51	100 54	97 52	94 43	91 29	88 10	84 49	81 25	78 01	74 36	71 10		10
	30	103 50	101 15	98 35	95 50	93 00	90 06	87 09	84 09	81 07	78 05	75 02	72 00		20
	40	101 24	99 01	96 34	94 04	91 29	88 52	86 12	83 29	80 45	78 00	75 14	72 29		30
	50	99 16	97 03	94 48	92 30	90 08	87 44	85 17	82 49	80 19	77 48	75 17	72 45		40
2	00	97 20	95 17	93 12	91 04	88 53	86 40	84 25	82 09	79 51	77 31	75 12	72 51	2	00
	10	95 36	93 42	91 44	89 45	87 43	85 39	83 34	81 28	79 21	77 11	75 01	72 51		10
	20	94 01	92 13	90 23	88 31	86 37	84 41	82 44	80 47	78 47	76 47	74 46	72 44		20
	30	92 33	90 50	89 06	87 21	85 35	83 46	81 56	80 05	78 12	76 20	74 27	72 32		30
	40	91 10	89 32	87 54	86 14	84 33	82 51	81 08	79 23	77 37	75 51	74 04	72 16		40
	50	89 50	88 18	86 45	85 11	83 34	81 58	80 19	78 41	77 01	75 19	73 38	71 56		50
3	00	88 35	87 08	85 39	84 08	82 37	81 05	79 32	77 58	76 22	74 46	73 10	71 33	3	00
	10	87 23	85 59	84 34	83 08	81 41	80 13	78 44	77 14	75 43	74 11	72 40	71 07		10
	20	86 14	84 53	83 32	82 08	80 45	79 20	77 56	76 30	75 03	73 35	72 08	70 38		20
	30	85 06	83 48	82 25	81 11	79 50	78 29	77 08	75 45	74 22	73 01	71 33	70 08		30
	40	84 00	82 45	81 29	80 12	78 55	77 37	76 19	75 00	73 39	72 18	70 57	69 36		40
	50	82 55	81 42	80 29	79 16	78 01	76 45	75 29	74 13	72 56	71 38	70 20	69 01		50
4	00	81 51	80 41	79 30	78 18	77 07	75 54	74 40	73 27	72 13	70 58	69 41	68 25	4	00
	10	80 47	79 40	78 31	77 22	76 12	75 01	73 50	72 39	71 26	70 13	69 00	67 47		10
	20	79 45	78 39	77 31	76 24	75 17	74 09	73 00	71 50	70 40	69 29	68 14	67 07		20
	30	78 44	77 38	76 33	75 27	74 22	73 15	72 08	71 01	69 52	68 44	67 35	66 25		30
	40	77 40	76 37	75 34	74 30	73 26	72 21	71 16	70 10	69 04	67 57	66 51	65 43		40
	50	76 38	75 36	74 34	73 32	72 30	71 26	70 22	69 19	68 14	67 10	66 05	65 00		50
5	00	75 35	74 35	73 34	72 34	71 33	70 30	69 28	68 26	67 23	66 20	65 16	64 12	5	00
	10	74 32	73 33	72 34	71 34	70 34	69 33	68 33	67 32	66 31	65 29	64 27	63 24		10
	20	73 28	72 30	71 33	70 34	69 35	68 37	67 37	66 38	65 38	64 37	63 37	62 36		20
	30	72 24	71 28	70 33	69 33	68 36	67 38	66 40	65 42	64 43	63 43	62 44	61 44		30
	40	71 20	70 24	69 28	68 32	67 36	66 39	65 41	64 44	63 47	62 49	61 51	60 52		40
	50	70 14	69 19	68 24	67 28	66 33	65 37	64 41	63 45	62 49	61 52	60 56	59 58		50
6	00	69 06	68 13	67 18	66 24	65 30	64 35	63 40	62 45	61 50	60 55	59 58	58 62	6	00
	10	68 06	67 14	66 19	65 25	64 31	63 37	62 42	61 47	60 52	59 57	58 62	57 66		10
	20	67 06	66 15	65 20	64 26	63 32	62 38	61 43	60 48	59 53	58 58	57 63	56 68		20
	30	66 06	65 16	64 21	63 27	62 33	61 39	60 45	59 50	58 55	57 60	56 65	55 70		30
	40	65 06	64 17	63 22	62 28	61 34	60 40	59 46	58 51	57 56	56 61	55 66	54 71		40
	50	64 06	63 18	62 24	61 30	60 36	59 42	58 48	57 54	56 59	55 65	54 70	53 75		50
7	00	63 13	62 22	61 32	60 41	59 51	59 00	58 09	57 19	56 28	55 37	54 46	53 54	7	00
	10	62 16	61 26	60 36	59 46	58 56	58 06	57 16	56 26	55 36	54 46	53 56	52 66		10
	20	61 19	60 30	59 40	58 50	58 00	57 10	56 20	55 30	54 40	53 50	52 60	51 70		20
	30	60 22	59 33	58 43	57 53	57 03	56 13	55 23	54 33	53 43	52 53	51 63	50 73		30
	40	59 25	58 36	57 46	56 56	56 06	55 16	54 26	53 36	52 46	51 56	50 66	49 76		40
	50	58 28	57 39	56 49	55 59	55 09	54 19	53 29	52 39	51 49	50 59	49 69	48 79		50
8	00	57 31	56 42	55 52	55 02	54 12	53 22	52 32	51 42	50 52	49 62	48 72	47 82	8	00
	10	56 34	55 45	54 55	54 05	53 15	52 25	51 35	50 45	49 55	48 65	47 75	46 85		10
	20	55 37	54 48	53 58	53 08	52 18	51 28	50 38	49 48	48 58	47 68	46 78	45 88		20
	30	54 40	53 51	53 01	52 11	51 21	50 31	49 41	48 51	47 61	46 71	45 81	44 91		30
	40	53 43	52 54	52 04	51 14	50 24	49 34	48 44	47 54	46 64	45 74	44 84	43 94		40
	50	52 46	51 57	51 07	50 17	49 27	48 37	47 47	46 57	45 67	44 77	43 87	42 97		50
9	00	51 49	50 60	49 70	48 80	47 90	47 00	46 10	45 20	44 30	43 40	42 50	41 60	9	00
	10	50 52	49 63	48 73	47 83	46 93	46 03	45 13	44 23	43 33	42 43	41 53	40 63		10
	20	49 55	48 66	47 76	46 86	45 96	45 06	44 16	43 26	42 36	41 46	40 56	39 66		20
	30	48 58	47 69	46 79	45 89	44 99	44 09	43 19	42 29	41 39	40 49	39 59	38 69		30
	40	47 61	46 72	45 82	44 92	44 02	43 12	42 22	41 32	40 42	39 52	38 62	37 72		40
	50	46 24	45 35	44 45	43 55	42 65	41 75	40 85	39 95	39 05	38 15	37 25	36 35		50
10	00	45 18	44 29	43 39	42 49	41 59	41 09	40 19	39 29	38 39	37 49	36 59	35 69	10	00
	10	44 21	43 32	42 42	41 52	41 02	40 12	39 22	38 32	37 42	36 52	36 02	35 12		10
	20	43 24	42 35	41 45	40 55	39 65	38 75	37 85	36 95	36 05	35 15	34 25	33 35		20
	30	42 27	41 38	40 48	39 58	38 68	37 78	36 88	35 98	35 08	34 18	33 28	32 38		30
	40	41 30	40 41	39 51	38 61	37 71	36 81	35 91	35 01	34 11	33 21	32 31	31 41		40
	50	40 33	39 44	38 54	37 64	36 74	35 84	34 94	34 04	33 14	32 24	31 34	30 44		50
11	00	39 36	38 47	37 57	36 67	35 77	34 87	33 97	33 07	32 17	31 27	30 37	29 47	11	00
	10	38 39	37 50	36 60	35 70	34 80	33 90	33 00	32 10	31 20	30 30	29 40	28 50		10
	20	37 42	36 53	35 63	34 73	33 83	32 93	32 03	31 13	30 23	29 33	28 43	27 53		20
	30	36 45	35 56	34 66	33 76	32 86	31 96	31 06	30 16	29 26	28 36	27 46	26 56		30
	40	35 48	34 59	33 69	32 79	31 89	30 99	30 09	29 19	28 29	27 39	26 49	25 59		40
	50	34 51	33 62	32 72	31 82	30 92	30 02	29 12	28 22	27 32	26 42	25 52	25 02		50
12	00	33 54	32 65	31 75	30 85	29 95	29 05	28 15	27 25	26 35	25 45	24 55	24 05	12	00
	10	32 57	31 68	30 78	29 88	28 98	28 08	27 18	26 28	25 38	24 48	23 58	23 08		10
	20	31 60	30 71	29 81	28 91	28 01	27 11	26 21	25 31	24 41	23 51	23 01	22 11		20
	30	30 63	29 74	28 84	27 94	27 04	26 14	25 24	24 34	23 44	22 54	22 04	21 14		30
	40	29 66	28 77	27 87	26 97	26 07	25 17	24 27	23 37	22 47	21 57	21 07	20 17		40
	50	28 69	27 80	26 90	26 00	25 10	24 20	23 30	22 40	21 50	21 00	20 10	19 20		50
	00	27 72	26 83	25 93	25 03	24 13	23 23	22 33	21 43	20 53	19 63	18 73	17 83		00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tab

AZIMUTH OR TRUE BEARING.

LATITUDE 31°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 31°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	21 58	18 22	15 42	13 38	12 02	10 44	9 57	8 43	7 56	7 15	6 40	6 09		10
	20	38 26	33 16	29 06	25 43	22 56	20 35	18 57	16 56	15 29	14 13	13 06	12 07		20
	30	49 20	43 59	39 22	35 26	32 02	29 06	26 33	24 20	22 22	20 26	19 06	17 43		30
	40	56 22	51 24	46 54	42 54	39 19	36 08	33 16	30 44	28 27	26 24	24 32	22 51		40
	50	61 00	56 32	52 32	48 32	45 00	41 47	38 49	36 07	33 40	31 25	29 21	27 28		50
1	00	64 10	60 10	56 22	52 46	49 25	46 15	43 20	40 37	38 05	35 44	33 34	31 32	1	00
	10	66 22	62 46	59 19	56 08	53 50	49 50	46 59	44 18	41 47	39 25	37 11	35 05		10
	20	67 55	64 40	61 30	58 26	55 29	52 39	49 55	47 20	44 51	42 39	40 16	38 09		20
	30	69 00	66 03	63 09	60 18	57 32	54 52	52 17	49 47	47 24	45 06	42 54	40 48		30
	40	69 44	67 01	64 21	61 43	59 09	56 38	54 11	51 48	49 30	47 16	45 08	43 03		40
	50	70 14	67 44	65 15	62 48	60 23	58 01	55 42	53 26	51 14	49 04	46 59	44 58		50
2	00	70 32	68 13	65 54	63 36	61 21	59 07	56 55	54 45	52 39	50 34	48 33	46 34	2	00
	10	70 41	68 32	66 21	64 12	62 04	59 57	57 52	55 49	53 48	51 48	49 51	47 56		10
	20	70 42	68 40	66 38	64 36	62 35	60 36	58 37	56 39	54 43	52 48	50 55	48 64		20
	30	70 37	68 42	66 47	64 52	62 58	61 04	59 11	57 18	55 27	53 37	51 48	49 61		30
	40	70 27	68 39	66 50	65 01	63 12	61 24	59 36	57 48	55 62	54 16	52 31	50 47		40
	50	70 13	68 30	66 46	65 03	63 19	61 36	59 52	58 09	56 27	54 45	53 04	51 23		50
3	00	69 55	68 16	66 38	64 59	63 20	61 41	60 02	58 24	56 45	55 07	53 29	51 49	3	00
	10	69 33	67 59	66 26	64 51	63 16	61 42	60 06	58 31	56 57	55 22	53 47	52 14		10
	20	69 09	67 41	66 09	64 38	62 58	61 37	60 05	58 33	57 02	55 31	54 00	52 30		20
	30	68 43	67 16	65 49	64 22	62 55	61 27	60 00	58 31	57 03	55 35	54 08	52 43		30
	40	68 13	66 50	65 27	64 03	62 39	61 14	59 47	58 24	57 00	55 36	54 08	52 42		40
	50	67 41	66 21	65 01	63 40	62 19	60 58	59 35	58 13	56 50	55 28	54 05	52 43		50
4	00	67 08	65 51	64 33	63 15	61 56	60 37	59 18	57 58	56 38	55 18	53 58	52 37	4	00
	10	66 32	65 18	64 03	62 47	61 31	60 14	58 57	57 40	56 22	55 05	53 47	52 30		10
	20	65 55	64 42	63 30	62 16	61 02	59 48	58 33	57 18	56 04	54 47	53 32	52 15		20
	30	65 15	64 05	62 54	61 43	60 32	59 20	58 07	56 54	55 41	54 27	53 14	52 00		30
	40	64 32	63 26	62 18	61 08	59 59	58 48	57 36	56 27	55 16	54 05	52 52	51 40		40
	50	63 53	62 46	61 39	60 31	59 23	58 15	57 06	55 57	54 48	53 38	52 28	51 17		50
5	00	63 08	61 03	60 57	59 51	58 46	57 39	56 32	55 24	54 17	53 09	52 01	50 52	5	00
	10	62 21	61 18	60 15	59 11	58 06	57 00	55 56	54 50	53 44	52 37	51 29	50 24		10
	20	61 34	60 32	59 29	58 27	57 24	56 21	55 17	54 13	53 09	52 04	50 58	49 53		20
	30	60 45	59 44	58 43	57 41	56 40	55 38	54 35	53 32	52 28	51 24	50 24	49 19		30
	40	59 53	58 52	57 53	56 54	55 55	54 56	53 53	52 52	51 51	50 50	49 50	48 48		40
	50	59 00	58 02	57 04	56 05	55 06	54 08	53 08	52 08	51 08	50 07	49 07	48 05		50
6	00	58 05	57 08	56 12	55 14	54 17	53 18	52 20	51 22	50 23	49 24	48 25	47 25	6	00
	10	57 19	56 13	55 17	54 20	53 23	52 26	51 31	50 34	49 36	48 38	47 40	46 41		10
	20	56 30	55 15	54 21	53 26	52 31	51 35	50 40	49 44	48 46	47 51	46 54	45 57		20
	30	55 09	54 16	53 23	52 30	51 34	50 40	49 46	48 50	47 56	47 01	46 05	45 09		30
	40	54 07	53 15	52 23	51 30	50 37	49 43	48 49	47 56	47 02	46 08	45 14	44 19		40
	50	53 04	52 12	51 20	50 28	49 37	48 45	47 52	47 00	46 06	45 13	44 20	43 27		50
7	00	51 57	51 07	50 16	49 25	48 34	47 42	46 51	46 00	45 09	44 17	43 25	42 32	7	00
	10	50 48	49 59	49 09	48 19	47 30	46 39	45 50	44 59	44 09	43 18	42 28	41 36		10
	20	49 37	48 48	48 01	47 11	46 22	45 34	44 45	43 56	43 07	42 17	41 27	40 37		20
	30	48 25	47 37	46 50	46 03	45 14	44 26	43 39	42 50	42 02	41 14	40 25	39 37		30
	40	47 09	46 23	45 37	44 50	44 03	43 16	42 29	41 42	40 55	40 08	39 21	38 33		40
	50	45 52	45 08	44 21	43 36	42 49	42 04	41 19	40 33	39 47	39 01	38 15	37 29		50
8	00	44 32	43 47	43 03	42 18	41 34	40 48	40 05	39 20	38 35	37 51	37 06	36 21	8	00
	10	43 09	42 26	41 42	40 59	40 15	39 32	38 48	38 06	37 22	36 39	35 55	35 11		10
	20	41 44	41 02	40 19	39 37	38 54	38 12	37 31	36 48	36 06	35 25	34 42	33 59		20
	30	40 16	39 35	38 54	38 13	37 31	36 51	36 10	35 29	34 48	34 08	33 27	32 46		30
	40	38 46	38 06	37 26	36 46	36 07	35 26	34 47	34 07	33 29	32 49	32 09	31 30		40
	50	37 13	36 35	35 56	35 16	34 38	34 00	33 22	32 43	32 05	31 28	30 50	30 12		50
9	00	35 38	34 59	34 23	33 45	33 08	32 32	31 54	31 17	30 41	30 04	29 28	28 51	9	00
	10	33 58	33 23	32 46	32 10	31 35	30 59	30 24	29 48	29 13	28 38	28 04	27 29		10
	20	32 18	31 42	31 08	30 33	30 00	29 25	28 52	28 17	27 45	27 12	26 38	26 04		20
	30	30 33	29 59	29 27	28 54	28 22	27 49	27 17	26 44	26 14	25 41	25 10	24 38		30
	40	28 46	28 15	27 43	27 12	26 41	26 11	25 40	25 09	24 39	24 09	23 39	23 09		40
	50	26 57	26 27	25 57	25 28	24 58	24 29	24 01	23 32	23 04	22 36	22 07	21 39		50
10	00	25 05	24 36	24 09	23 41	23 13	22 47	22 19	21 51	21 26	21 00	20 33	20 07	10	00
	10	23 09	22 43	22 18	21 52	21 26	21 00	20 35	20 11	19 46	19 22	18 58	18 33		10
	20	21 12	20 48	20 25	20 00	19 37	19 14	18 50	18 27	18 05	17 42	17 20	16 56		20
	30	19 12	18 50	18 28	18 07	17 45	17 24	17 03	16 42	16 21	16 00	15 41	15 21		30
	40	17 10	16 51	16 31	16 11	15 52	15 33	15 14	14 56	14 37	14 18	14 00	13 41		40
	50	15 06	14 49	14 32	14 14	13 57	13 40	13 24	13 07	12 51	12 34	12 19	12 02		50
11	00	13 00	12 45	12 30	12 16	12 00	11 46	11 31	11 17	11 03	10 49	10 35	10 21	11	00
	10	10 53	10 40	10 27	10 15	10 03	9 50	9 38	9 26	9 14	9 03	8 51	8 40		10
	20	8 44	8 34	8 24	8 13	8 04	7 54	7 44	7 35	7 25	7 15	7 06	6 56		20
	30	6 34	6 26	6 18	6 11	6 03	5 56	5 49	5 42	5 34	5 27	5 20	5 13		30
	40	4 23	4 17	4 13	4 08	4 03	3 58	3 53	3 48	3 44	3 39	3 34	3 29		40
	50	2 12	2 09	2 06	2 04	2 02	1 59	1 56	1 54	1 51	1 49	1 46	1 44		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 31°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 31°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	5 42	5 17	4 55	4 35	4 17	4 00	3 45	3 31	3 18	3 07	2 55	2 44	1	10
	20	11 13	10 26	9 43	9 05	8 29	7 57	7 27	6 59	6 34	6 10	5 48	5 27		20
	30	16 28	15 21	14 20	13 24	12 33	11 46	11 02	10 22	9 44	9 09	8 37	8 07		30
	40	21 20	19 56	18 39	17 26	16 25	15 24	14 29	13 37	12 49	12 04	11 21	10 42		40
	50	25 44	24 08	22 39	21 17	20 01	18 50	17 44	16 42	15 45	14 50	13 59	13 11		50
1	00	29 40	27 55	26 17	24 46	23 21	22 01	20 46	19 36	18 31	17 28	16 29	15 34	1	00
	10	33 08	31 18	29 33	27 56	26 24	24 58	23 36	22 18	21 05	19 57	18 51	17 49		10
	20	36 10	34 16	32 28	30 46	29 09	27 38	26 10	24 47	23 30	22 15	21 04	19 57		20
	30	38 48	36 52	35 02	33 18	31 38	30 03	28 31	27 05	25 43	24 24	23 07	21 56		30
	40	41 03	39 09	37 18	35 32	33 51	32 13	30 40	29 10	27 44	26 21	25 02	23 46		40
	50	43 00	41 06	39 16	37 31	35 48	34 09	32 33	31 02	29 34	28 09	26 47	25 27		50
2	00	44 40	42 48	41 00	39 14	37 32	35 53	34 16	32 43	31 14	29 47	28 22	27 01	2	00
	10	46 04	44 14	42 27	40 41	39 02	37 24	35 47	34 14	32 43	31 15	29 49	28 26		10
	20	47 15	45 26	43 43	41 58	40 21	38 43	37 07	35 33	34 03	32 34	31 08	29 44		20
	30	48 15	46 31	44 48	43 08	41 29	39 52	38 17	36 44	35 13	33 45	32 18	30 53		30
	40	49 04	47 23	45 42	44 04	42 28	40 52	39 18	37 45	36 16	34 47	33 20	31 55		40
	50	49 44	48 06	46 28	44 52	43 17	41 43	40 11	38 40	37 10	35 42	34 15	32 50		50
3	00	50 16	48 41	47 06	45 32	43 58	42 26	40 55	39 25	37 57	36 30	35 03	33 39	3	00
	10	50 41	49 08	47 36	46 04	44 33	43 02	41 32	40 05	38 38	37 11	35 45	34 21		10
	20	50 58	49 28	47 58	46 29	45 00	43 32	42 04	40 37	39 12	37 45	36 21	34 58		20
	30	51 10	49 43	48 16	46 50	45 22	43 55	42 28	41 03	39 40	38 15	36 52	35 29		30
	40	51 17	49 52	48 27	47 02	45 37	44 13	42 48	41 25	40 02	38 39	37 16	35 54		40
	50	51 19	49 56	48 33	47 11	45 47	44 25	43 03	41 40	40 19	38 57	37 36	36 15		50
4	00	51 17	49 55	48 35	47 14	45 53	44 32	43 12	41 51	40 31	39 12	37 51	36 32	4	00
	10	51 10	49 51	48 32	47 14	45 54	44 35	43 17	41 58	40 39	39 20	38 02	36 43		10
	20	50 59	49 43	48 26	47 09	45 52	44 34	43 17	42 00	40 43	39 26	38 08	36 52		20
	30	50 45	49 31	48 15	47 01	45 45	44 30	43 14	41 58	40 43	39 27	38 11	36 55		30
	40	50 27	49 15	48 02	46 48	45 34	44 21	43 07	41 53	40 39	39 24	38 10	36 52		40
	50	50 06	48 55	47 44	46 33	45 21	44 09	42 56	41 43	40 31	39 18	38 04	36 52		50
5	00	49 43	48 34	47 24	46 15	45 04	43 53	42 42	41 31	40 20	39 09	37 57	36 45	5	00
	10	49 17	48 09	47 01	45 52	44 44	43 35	42 26	41 16	40 07	38 56	37 46	36 36		10
	20	48 47	47 41	46 35	45 28	44 21	43 13	42 05	40 57	39 50	38 41	37 31	36 22		20
	30	48 16	47 14	46 08	45 01	43 55	42 49	41 42	40 35	39 29	38 22	37 14	36 06		30
	40	47 39	46 37	45 34	44 30	43 26	42 21	41 16	40 11	39 06	38 00	36 54	35 48		40
	50	47 04	46 03	45 00	43 58	42 55	41 51	40 48	39 44	38 40	37 36	36 30	35 26		50
6	00	46 24	45 24	44 23	43 23	42 21	41 19	40 17	39 15	38 12	37 09	36 05	35 02	6	00
	10	45 43	44 44	43 45	42 45	41 44	40 44	39 43	38 43	37 42	36 39	35 37	34 35		10
	20	44 59	44 01	43 03	42 05	41 06	40 07	39 08	38 08	37 08	36 08	35 06	34 05		20
	30	44 13	43 16	42 19	41 22	40 25	39 28	38 29	37 31	36 32	35 33	34 34	33 34		30
	40	43 24	42 29	41 34	40 37	39 42	38 45	37 48	36 51	35 55	34 57	33 59	33 00		40
	50	42 34	41 40	40 46	39 51	38 56	38 00	37 05	36 10	35 14	34 18	33 21	32 25		50
7	00	41 40	40 48	39 55	39 02	38 09	37 14	36 21	35 26	34 31	33 36	32 41	31 46	7	00
	10	40 45	39 53	39 01	38 10	37 18	36 25	35 33	34 40	33 47	32 53	31 59	31 05		10
	20	39 48	38 57	38 07	37 17	36 26	35 35	34 44	33 51	33 00	32 08	31 15	30 23		20
	30	38 48	37 59	37 10	36 22	35 31	34 42	33 51	33 02	32 12	31 21	30 30	29 39		30
	40	37 47	36 58	36 11	35 24	34 34	33 47	32 57	32 09	31 20	30 31	29 41	28 52		40
	50	36 42	35 56	35 10	34 23	33 36	32 50	32 02	31 15	30 27	29 39	28 51	28 03		50
8	00	35 36	34 51	34 06	33 21	32 35	31 50	31 04	30 18	29 33	28 46	27 59	27 13	8	00
	10	34 28	33 45	33 00	32 17	31 33	30 49	30 05	29 20	28 35	27 51	27 05	26 20		10
	20	33 17	32 35	31 53	31 11	30 28	29 45	29 02	28 20	27 37	26 53	26 10	25 26		20
	30	32 05	31 24	30 43	30 03	29 22	28 40	27 59	27 17	26 36	25 54	25 12	24 30		30
	40	30 51	30 11	29 32	28 53	28 13	27 32	26 53	26 13	25 34	24 53	24 13	23 33		40
	50	29 34	28 56	28 18	27 40	27 02	26 24	25 46	25 07	24 29	23 51	23 12	22 33		50
9	00	28 15	27 38	27 02	26 26	25 50	25 13	24 37	24 00	23 23	22 46	22 10	21 33	9	00
	10	26 54	26 18	25 44	25 10	24 35	24 00	23 25	22 50	22 16	21 40	21 05	20 30		10
	20	25 32	24 58	24 25	23 52	23 18	22 46	22 13	21 39	21 06	20 33	19 59	19 26		20
	30	24 07	23 35	23 03	22 32	22 01	21 28	20 56	20 27	19 56	19 24	18 53	18 22		30
	40	22 40	22 10	21 40	21 11	20 42	20 11	19 42	19 13	18 44	18 13	17 43	17 15		40
	50	21 11	20 43	20 16	19 48	19 20	18 52	18 25	17 57	17 30	17 02	16 34	16 06		50
10	00	19 41	19 15	18 49	18 23	17 57	17 32	17 05	16 40	16 15	15 49	15 22	14 57	10	00
	10	18 09	17 44	17 21	16 57	16 33	16 09	15 45	15 21	14 58	14 34	14 10	13 43		10
	20	16 35	16 13	15 52	15 30	15 08	14 46	14 24	14 02	13 40	13 18	12 57	12 35		20
	30	15 00	14 40	14 21	14 01	13 41	13 21	13 01	12 42	12 22	12 02	11 42	11 22		30
	40	13 24	13 05	12 48	12 31	12 13	11 55	11 37	11 19	11 01	10 44	10 27	10 09		40
	50	11 47	11 30	11 14	10 59	10 43	10 27	10 12	9 57	9 41	9 26	9 10	8 55		50
11	00	10 07	9 54	9 40	9 27	9 13	9 00	8 47	8 33	8 20	8 07	7 53	7 39	11	00
	10	8 16	8 05	7 53	7 42	7 31	7 20	7 09	6 58	6 46	6 35	6 24	6 13		10
	20	6 47	6 38	6 29	6 20	6 11	6 02	5 53	5 43	5 34	5 26	5 17	5 08		20
	30	5 06	4 59	4 52	4 45	4 38	4 31	4 25	4 18	4 12	4 05	3 58	3 51		30
	40	3 24	3 19	3 15	3 10	3 05	3 01	2 56	2 52	2 48	2 43	2 39	2 35		40
	50	1 43	1 40	1 38	1 36	1 33	1 31	1 29	1 27	1 24	1 22	1 19	1 17		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 32°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 32°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.													h.	m.
		0	0	0	0	0	0	0	0	0	0	0	0		
0	00	0	0	0	0	0	0	0	0	0	0	0	0	0	00
	10	26	21	18	15	13	11	10	9	8	7	6	5		10
	20	44	38	32	28	25	22	20	18	16	15	13	12		20
	30	55	48	43	38	35	31	28	26	23	22	20	18		30
	40	61	53	51	46	42	38	35	32	30	28	25	24		40
	50	65	56	56	51	48	44	41	38	35	33	30	28		50
1	00	68	63	59	55	52	48	45	42	40	37	35	33	1	00
	10	69	64	62	58	55	52	49	46	43	41	38	36		10
	20	70	65	63	59	56	53	50	47	44	42	39	37		20
	30	71	66	64	60	57	54	51	48	45	43	40	38		30
	40	72	67	65	61	58	55	52	49	46	44	41	39		40
	50	72	67	65	61	58	55	52	49	46	44	41	39		50
2	00	72	67	65	61	58	55	52	49	46	44	41	39	2	00
	10	72	67	65	61	58	55	52	49	46	44	41	39		10
	20	72	67	65	61	58	55	52	49	46	44	41	39		20
	30	72	67	65	61	58	55	52	49	46	44	41	39		30
	40	71	67	65	61	58	55	52	49	46	44	41	39		40
	50	71	67	65	61	58	55	52	49	46	44	41	39		50
3	00	71	67	65	61	58	55	52	49	46	44	41	39	3	00
	10	70	66	64	60	57	54	51	48	45	43	40	38		10
	20	70	66	64	60	57	54	51	48	45	43	40	38		20
	30	69	65	63	59	56	53	50	47	44	42	39	37		30
	40	68	64	62	58	55	52	49	46	43	41	38	36		40
	50	68	64	62	58	55	52	49	46	43	41	38	36		50
4	00	67	63	60	56	53	50	47	44	41	39	36	34	4	00
	10	67	63	60	56	53	50	47	44	41	39	36	34		10
	20	66	62	59	55	52	49	46	43	40	38	35	33		20
	30	65	61	58	54	51	48	45	42	39	37	34	32		30
	40	64	60	57	53	50	47	44	41	38	36	33	31		40
	50	64	60	57	53	50	47	44	41	38	36	33	31		50
5	00	63	59	56	52	49	46	43	40	37	35	32	30	5	00
	10	62	58	55	51	48	45	42	39	36	34	31	29		10
	20	61	57	54	50	47	44	41	38	35	33	30	28		20
	30	60	56	53	49	46	43	40	37	34	32	29	27		30
	40	59	55	52	48	45	42	39	36	33	31	28	26		40
	50	58	54	51	47	44	41	38	35	32	30	27	25		50
6	00	58	54	51	47	44	41	38	35	32	30	27	25	6	00
	10	57	53	50	46	43	40	37	34	31	29	26	24		10
	20	56	52	49	45	42	39	36	33	30	28	25	23		20
	30	55	51	48	44	41	38	35	32	29	27	24	22		30
	40	54	50	47	43	40	37	34	31	28	26	23	21		40
	50	53	49	46	42	39	36	33	30	27	25	22	20		50
7	00	52	48	45	41	38	35	32	29	26	24	21	19	7	00
	10	50	46	43	39	36	33	30	27	24	22	19	17		10
	20	49	45	42	38	35	32	29	26	23	21	18	16		20
	30	48	44	41	37	34	31	28	25	22	20	17	15		30
	40	47	43	40	36	33	30	27	24	21	19	16	14		40
	50	45	42	39	35	32	29	26	23	20	18	15	13		50
8	00	44	40	37	33	30	27	24	21	18	16	13	11	8	00
	10	43	39	36	32	29	26	23	20	17	15	12	10		10
	20	41	37	34	30	27	24	21	18	15	13	10	9		20
	30	40	36	33	29	26	23	20	17	14	12	9	8		30
	40	38	34	31	27	24	21	18	15	12	10	7	6		40
	50	37	33	30	26	23	20	17	14	11	9	6	5		50
9	00	35	31	28	24	21	18	15	12	9	7	4	3	9	00
	10	33	29	26	22	19	16	13	10	7	5	2	1		10
	20	32	28	25	21	18	15	12	9	6	4	1	0		20
	30	30	26	23	19	16	13	10	7	4	2	0	0		30
	40	28	24	21	17	14	11	8	5	2	0	0	0		40
	50	26	22	19	15	12	9	6	3	0	0	0	0		50
10	00	24	20	17	13	10	7	4	1	0	0	0	0	10	00
	10	23	19	16	12	9	6	3	0	0	0	0	0		10
	20	22	18	15	11	8	5	2	0	0	0	0	0		20
	30	21	17	14	10	7	4	1	0	0	0	0	0		30
	40	19	15	12	8	5	2	0	0	0	0	0	0		40
	50	17	13	10	7	4	1	0	0	0	0	0	0		50
11	00	15	11	8	5	2	0	0	0	0	0	0	0	11	00
	10	14	10	7	4	1	0	0	0	0	0	0	0		10
	20	13	9	6	3	0	0	0	0	0	0	0	0		20
	30	12	8	5	2	0	0	0	0	0	0	0	0		30
	40	11	7	4	1	0	0	0	0	0	0	0	0		40
	50	10	6	3	0	0	0	0	0	0	0	0	0		50
12	00	8	4	1	0	0	0	0	0	0	0	0	0	12	00
	10	7	3	0	0	0	0	0	0	0	0	0	0		10
	20	6	2	0	0	0	0	0	0	0	0	0	0		20
	30	5	1	0	0	0	0	0	0	0	0	0	0		30
	40	4	0	0	0	0	0	0	0	0	0	0	0		40
	50	3	0	0	0	0	0	0	0	0	0	0	0		50

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 32°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 32°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h. m.	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	h. m.	0 00
	10	0 02	0 03	0 04	0 05	0 06	0 07	0 08	0 09	0 10	0 11	0 12	0 13		10
	20	11 54	11 55	11 56	11 57	11 58	11 59	12 00	12 01	12 02	12 03	12 04	12 05		20
	30	17 24	17 25	17 26	17 27	17 28	17 29	17 30	17 31	17 32	17 33	17 34	17 35		30
	40	22 28	22 29	22 30	22 31	22 32	22 33	22 34	22 35	22 36	22 37	22 38	22 39		40
	50	27 01	27 02	27 03	27 04	27 05	27 06	27 07	27 08	27 09	27 10	27 11	27 12		50
1	00	31 03	31 04	31 05	31 06	31 07	31 08	31 09	31 10	31 11	31 12	31 13	31 14	1	00
	10	34 34	34 35	34 36	34 37	34 38	34 39	34 40	34 41	34 42	34 43	34 44	34 45		10
	20	37 37	37 38	37 39	37 40	37 41	37 42	37 43	37 44	37 45	37 46	37 47	37 48		20
	30	40 15	40 16	40 17	40 18	40 19	40 20	40 21	40 22	40 23	40 24	40 25	40 26		30
	40	42 29	42 30	42 31	42 32	42 33	42 34	42 35	42 36	42 37	42 38	42 39	42 40		40
	50	44 23	44 24	44 25	44 26	44 27	44 28	44 29	44 30	44 31	44 32	44 33	44 34		50
2	00	46 00	46 01	46 02	46 03	46 04	46 05	46 06	46 07	46 08	46 09	46 10	46 11	2	00
	10	47 21	47 22	47 23	47 24	47 25	47 26	47 27	47 28	47 29	47 30	47 31	47 32		10
	20	48 29	48 30	48 31	48 32	48 33	48 34	48 35	48 36	48 37	48 38	48 39	48 40		20
	30	49 25	49 26	49 27	49 28	49 29	49 30	49 31	49 32	49 33	49 34	49 35	49 36		30
	40	50 10	50 11	50 12	50 13	50 14	50 15	50 16	50 17	50 18	50 19	50 20	50 21		40
	50	50 47	50 48	50 49	50 50	50 51	50 52	50 53	50 54	50 55	50 56	50 57	50 58		50
3	00	51 16	51 17	51 18	51 19	51 20	51 21	51 22	51 23	51 24	51 25	51 26	51 27	3	00
	10	51 38	51 39	51 40	51 41	51 42	51 43	51 44	51 45	51 46	51 47	51 48	51 49		10
	20	51 53	51 54	51 55	51 56	51 57	51 58	51 59	52 00	52 01	52 02	52 03	52 04		20
	30	52 02	52 03	52 04	52 05	52 06	52 07	52 08	52 09	52 10	52 11	52 12	52 13		30
	40	52 06	52 07	52 08	52 09	52 10	52 11	52 12	52 13	52 14	52 15	52 16	52 17		40
	50	52 05	52 06	52 07	52 08	52 09	52 10	52 11	52 12	52 13	52 14	52 15	52 16		50
4	00	51 59	51 60	51 61	51 62	51 63	51 64	51 65	51 66	51 67	51 68	51 69	51 70	4	00
	10	51 50	51 51	51 52	51 53	51 54	51 55	51 56	51 57	51 58	51 59	52 00	52 01		10
	20	51 37	51 38	51 39	51 40	51 41	51 42	51 43	51 44	51 45	51 46	51 47	51 48		20
	30	51 20	51 21	51 22	51 23	51 24	51 25	51 26	51 27	51 28	51 29	51 30	51 31		30
	40	51 01	51 02	51 03	51 04	51 05	51 06	51 07	51 08	51 09	51 10	51 11	51 12		40
	50	50 38	50 39	50 40	50 41	50 42	50 43	50 44	50 45	50 46	50 47	50 48	50 49		50
5	00	50 12	50 13	50 14	50 15	50 16	50 17	50 18	50 19	50 20	50 21	50 22	50 23	5	00
	10	49 44	49 45	49 46	49 47	49 48	49 49	49 50	49 51	49 52	49 53	49 54	49 55		10
	20	49 13	49 14	49 15	49 16	49 17	49 18	49 19	49 20	49 21	49 22	49 23	49 24		20
	30	48 39	48 40	48 41	48 42	48 43	48 44	48 45	48 46	48 47	48 48	48 49	48 50		30
	40	48 02	48 03	48 04	48 05	48 06	48 07	48 08	48 09	48 10	48 11	48 12	48 13		40
	50	47 24	47 25	47 26	47 27	47 28	47 29	47 30	47 31	47 32	47 33	47 34	47 35		50
6	00	46 43	46 44	46 45	46 46	46 47	46 48	46 49	46 50	46 51	46 52	46 53	46 54	6	00
	10	46 00	46 01	46 02	46 03	46 04	46 05	46 06	46 07	46 08	46 09	46 10	46 11		10
	20	45 14	45 15	45 16	45 17	45 18	45 19	45 20	45 21	45 22	45 23	45 24	45 25		20
	30	44 27	44 28	44 29	44 30	44 31	44 32	44 33	44 34	44 35	44 36	44 37	44 38		30
	40	43 37	43 38	43 39	43 40	43 41	43 42	43 43	43 44	43 45	43 46	43 47	43 48		40
	50	42 45	42 46	42 47	42 48	42 49	42 50	42 51	42 52	42 53	42 54	42 55	42 56		50
7	00	41 50	41 51	41 52	41 53	41 54	41 55	41 56	41 57	41 58	41 59	42 00	42 01	7	00
	10	40 54	40 55	40 56	40 57	40 58	40 59	41 00	41 01	41 02	41 03	41 04	41 05		10
	20	39 55	39 56	39 57	39 58	39 59	40 00	40 01	40 02	40 03	40 04	40 05	40 06		20
	30	38 56	38 57	38 58	38 59	39 00	39 01	39 02	39 03	39 04	39 05	39 06	39 07		30
	40	37 52	37 53	37 54	37 55	37 56	37 57	37 58	37 59	38 00	38 01	38 02	38 03		40
	50	36 47	36 48	36 49	36 50	36 51	36 52	36 53	36 54	36 55	36 56	36 57	36 58		50
8	00	35 40	35 41	35 42	35 43	35 44	35 45	35 46	35 47	35 48	35 49	35 50	35 51	8	00
	10	34 30	34 31	34 32	34 33	34 34	34 35	34 36	34 37	34 38	34 39	34 40	34 41		10
	20	33 20	33 21	33 22	33 23	33 24	33 25	33 26	33 27	33 28	33 29	33 30	33 31		20
	30	32 07	32 08	32 09	32 10	32 11	32 12	32 13	32 14	32 15	32 16	32 17	32 18		30
	40	30 51	30 52	30 53	30 54	30 55	30 56	30 57	30 58	30 59	31 00	31 01	31 02		40
	50	29 34	29 35	29 36	29 37	29 38	29 39	29 40	29 41	29 42	29 43	29 44	29 45		50
9	00	28 15	28 16	28 17	28 18	28 19	28 20	28 21	28 22	28 23	28 24	28 25	28 26	9	00
	10	26 53	26 54	26 55	26 56	26 57	26 58	26 59	27 00	27 01	27 02	27 03	27 04		10
	20	25 30	25 31	25 32	25 33	25 34	25 35	25 36	25 37	25 38	25 39	25 40	25 41		20
	30	24 05	24 06	24 07	24 08	24 09	24 10	24 11	24 12	24 13	24 14	24 15	24 16		30
	40	22 37	22 38	22 39	22 40	22 41	22 42	22 43	22 44	22 45	22 46	22 47	22 48		40
	50	21 09	21 10	21 11	21 12	21 13	21 14	21 15	21 16	21 17	21 18	21 19	21 20		50
10	00	19 39	19 40	19 41	19 42	19 43	19 44	19 45	19 46	19 47	19 48	19 49	19 50	10	00
	10	18 06	18 07	18 08	18 09	18 10	18 11	18 12	18 13	18 14	18 15	18 16	18 17		10
	20	16 32	16 33	16 34	16 35	16 36	16 37	16 38	16 39	16 40	16 41	16 42	16 43		20
	30	14 58	14 59	15 00	15 01	15 02	15 03	15 04	15 05	15 06	15 07	15 08	15 09		30
	40	13 22	13 23	13 24	13 25	13 26	13 27	13 28	13 29	13 30	13 31	13 32	13 33		40
	50	11 44	11 45	11 46	11 47	11 48	11 49	11 50	11 51	11 52	11 53	11 54	11 55		50
11	00	10 06	10 07	10 08	10 09	10 10	10 11	10 12	10 13	10 14	10 15	10 16	10 17	11	00
	10	8 27	8 28	8 29	8 30	8 31	8 32	8 33	8 34	8 35	8 36	8 37	8 38		10
	20	6 46	6 47	6 48	6 49	6 50	6 51	6 52	6 53	6 54	6 55	6 56	6 57		20
	30	5 05	5 06	5 07	5 08	5 09	5 10	5 11	5 12	5 13	5 14	5 15	5 16		30
	40	3 24	3 25	3 26	3 27	3 28	3 29	3 30	3 31	3 32	3 33	3 34	3 35		40
	50	1 41	1 42	1 43	1 44	1 45	1 46	1 47	1 48	1 49	1 50	1 51	1 52		50
12	00	0 00	0 01	0 02	0 03	0 04	0 05	0 06	0 07	0 08	0 09	0 10	0 11	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 33°		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 33°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.			
h.	m.	0	1	2	3	4	5	6	7	8	9	10	11	h.	m.		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00		
	10	33 48	26 24	21 26	17 55	15 17	13 17	11 41	10 24	9 19	8 26	7 40	7 00	1	00		
	20	52 33	44 16	37 44	32 35	28 25	25 02	22 18	19 59	18 03	16 24	14 58	13 44	2	00		
	30	62 01	54 50	48 33	43 10	38 34	34 37	31 15	28 20	25 48	23 36	21 40	19 58	3	00		
	40	67 13	61 09	55 36	50 35	46 04	42 02	38 27	35 15	32 24	29 53	27 37	25 34	4	00		
	50	70 17	65 09	60 17	55 45	51 32	47 38	44 05	40 51	37 53	35 11	32 43	30 30	5	00		
1	00	72 10	67 45	63 28	59 24	55 32	51 53	48 30	45 19	42 22	39 37	37 05	34 45	1	10		
	10	73 21	69 29	65 41	62 01	58 30	55 07	51 55	48 52	45 59	43 17	40 44	38 21	2	10		
	20	74 05	70 38	67 15	63 56	60 43	57 35	54 34	51 41	48 55	46 18	43 48	41 26	3	10		
	30	74 30	71 24	68 20	65 18	62 20	59 27	56 39	53 54	51 18	48 45	46 20	44 01	4	10		
	40	74 41	71 52	69 04	66 17	63 33	60 53	58 16	55 41	53 11	50 40	48 25	46 10	5	10		
	50	74 43	72 07	69 33	67 00	64 27	61 57	59 30	57 04	54 42	52 24	50 09	47 58		50		
2	00	74 36	72 13	69 51	67 28	65 07	62 46	60 28	58 10	55 55	53 43	51 34	49 27	2	00		
	10	74 24	72 11	69 58	67 45	65 33	63 21	61 11	59 00	56 52	54 47	52 43	50 42	3	10		
	20	74 07	72 03	69 58	67 53	65 49	63 45	61 41	59 38	57 37	55 37	53 38	51 42	4	10		
	30	73 46	71 49	69 52	67 55	65 57	63 59	62 03	60 06	58 11	56 15	54 22	52 30	5	10		
	40	73 22	71 32	69 41	67 49	65 59	64 07	62 16	60 25	58 35	56 45	54 56	53 02		50		
	50	72 55	71 10	69 25	67 39	65 54	64 08	62 23	60 30	58 37	56 45	55 51	53 57		50		
3	00	72 25	70 46	69 06	67 25	65 45	64 03	62 23	60 42	59 01	57 20	55 39	53 58	3	00		
	10	71 52	70 18	68 42	67 07	65 30	63 54	62 18	60 44	59 02	57 26	55 50	54 14	4	10		
	20	71 18	69 48	68 17	66 45	65 13	63 40	62 06	60 34	59 02	57 28	55 55	54 22	5	10		
	30	70 42	69 16	67 48	66 21	64 52	63 23	61 55	60 25	58 55	57 25	55 55	54 24		50		
	40	70 05	68 41	67 17	65 53	64 28	63 02	61 37	60 10	58 44	57 17	55 50	54 23		50		
	50	69 25	68 05	66 44	65 23	64 01	62 38	61 16	59 52	58 29	57 05	55 41	54 16		50		
4	00	68 44	67 27	66 09	64 50	63 31	62 12	60 52	59 31	58 10	56 49	55 27	54 06	4	00		
	10	68 02	66 47	65 31	64 16	62 59	61 42	60 25	59 06	57 48	56 29	55 11	53 52	5	10		
	20	67 18	66 05	64 53	63 39	62 25	61 10	59 54	58 40	57 24	56 06	54 51	53 34		50		
	30	66 33	65 22	64 11	63 00	61 48	60 35	59 23	58 10	56 56	55 42	54 27	53 13		50		
	40	65 46	64 37	63 28	62 19	61 10	59 59	58 49	57 37	56 26	55 14	54 01	52 49		50		
	50	64 58	63 51	62 44	61 37	60 29	59 20	58 12	57 02	55 53	54 43	53 32	52 21		50		
5	00	64 08	63 03	61 58	60 53	59 46	58 39	57 33	56 26	55 18	54 10	53 01	51 52	5	00		
	10	63 17	62 14	61 10	60 07	59 02	57 57	56 53	55 46	54 40	53 33	52 26	51 19	6	10		
	20	62 25	61 23	60 21	59 19	58 16	57 12	56 09	55 04	54 01	52 56	51 50	50 45		50		
	30	61 31	60 30	59 29	58 29	57 27	56 26	55 24	54 22	53 19	52 15	51 11	50 07		50		
	40	60 35	59 35	58 36	57 37	56 38	55 37	54 36	53 35	52 34	51 32	50 30	49 28		50		
	50	59 36	58 40	57 42	56 44	55 46	54 46	53 46	52 48	51 48	50 48	49 47	48 46		50		
6	00	58 39	57 43	56 46	55 49	54 51	53 54	52 57	51 58	51 00	50 00	49 01	48 02	6	00		
	10	57 39	56 43	55 48	54 52	53 57	53 00	52 04	51 06	50 10	49 12	48 14	47 16	7	10		
	20	56 37	55 42	54 48	53 53	52 58	52 03	51 09	50 13	49 17	48 20	47 24	46 27		50		
	30	55 32	54 40	53 47	52 53	51 59	51 05	50 12	49 18	48 23	47 27	46 32	45 36		50		
	40	54 26	53 35	52 43	51 51	50 58	50 05	49 13	48 20	47 26	46 33	45 38	44 43		50		
	50	53 19	52 29	51 37	50 47	49 55	49 03	48 12	47 20	46 28	45 35	44 42	43 49		50		
7	00	52 10	51 20	50 30	49 41	48 50	47 59	47 10	46 18	45 27	44 35	43 45	42 52	7	00		
	10	50 58	50 10	49 20	48 32	47 43	46 53	46 04	45 14	44 24	43 34	42 44	41 54	8	10		
	20	49 45	48 56	48 09	47 21	46 33	45 45	44 57	44 08	43 20	42 30	41 42	40 53		50		
	30	48 29	47 42	46 56	46 09	45 22	44 35	43 48	43 00	42 13	41 25	40 38	39 50		50		
	40	47 11	46 26	45 40	44 54	44 09	43 22	42 37	41 50	41 04	40 17	39 32	38 45		50		
	50	45 52	45 07	44 22	43 38	42 53	42 08	41 24	40 38	39 54	39 08	38 23	37 37		50		
8	00	44 29	43 45	43 02	42 18	41 34	40 51	40 08	39 24	38 39	37 56	37 13	36 28	8	00		
	10	43 05	42 22	41 40	40 57	40 15	39 32	38 51	38 08	37 25	36 42	35 59	35 17	9	10		
	20	41 38	40 56	40 15	39 34	38 52	38 11	37 30	36 49	36 08	35 26	34 45	34 05		50		
	30	40 08	39 28	38 48	38 08	37 27	36 48	36 08	35 29	34 49	34 09	33 29	32 50		50		
	40	38 37	37 58	37 18	36 39	36 01	35 22	34 44	34 05	33 27	32 48	32 09	31 30		50		
	50	37 02	36 24	35 47	35 09	34 31	33 54	33 17	32 40	32 03	31 26	30 48	30 12		50		
9	00	35 25	34 48	34 12	33 36	33 00	32 24	31 48	31 12	30 37	30 01	29 25	28 50	9	00		
	10	33 46	33 10	32 36	32 01	31 27	30 52	30 18	29 43	29 09	28 34	28 00	27 27	10	10		
	20	32 03	31 30	30 56	30 23	29 50	29 17	28 44	28 12	27 39	27 06	26 34	26 01		50		
	30	30 19	29 46	29 15	28 43	28 11	27 40	27 10	26 38	26 07	25 36	25 05	24 35		50		
	40	28 32	28 01	27 30	27 01	26 31	26 01	25 32	25 02	24 32	24 03	23 34	23 05		50		
	50	26 42	26 12	25 44	25 16	24 48	24 19	23 52	23 24	22 56	22 29	22 02	21 35		50		
10	00	24 50	24 23	23 56	23 29	23 03	22 37	22 11	21 45	21 19	20 53	20 28	20 03	10	00		
	10	22 55	22 29	22 05	21 40	21 15	20 51	20 27	20 03	19 39	19 15	18 52	18 28	11	10		
	20	20 58	20 34	20 12	19 50	19 26	19 04	18 43	18 20	17 58	17 36	17 14	16 53		50		
	30	18 59	18 38	18 17	17 56	17 35	17 15	16 55	16 34	16 15	15 55	15 36	15 16		50		
	40	16 58	16 39	16 19	16 02	15 43	15 24	15 07	14 48	14 31	14 12	13 55	13 38		50		
	50	14 55	14 38	14 22	14 05	13 49	13 33	13 16	13 00	12 45	12 29	12 13	11 58		50		
11	00	12 51	12 36	12 22	12 07	11 53	11 38	11 25	11 11	10 58	10 44	10 31	10 17	11	00		
	10	10 45	10 32	10 20	10 08	9 56	9 44	9 33	9 21	9 10	8 58	8 47	8 36	12	10		
	20	8 37	8 27	8 18	8 08	7 58	7 49	7 39	7 30	7 21	7 12	7 03	6 54		50		
	30	6 29	6 21	6 14	6 06	6 00	5 52	5 46	5 39	5 31	5 25	5 18	5 11		50		
	40	4 19	4 15	4 10	4 05	4 00	3 55	3 50	3 46	3 42	3 37	3 32	3 27		50		
	50	2 10	2 08	2 05	2 02	2 00	1 57	1 55	1 53	1 51	1 48	1 46	1 44		50		

AZIMUTH OR TRUE BEARING.

LATITUDE 33°.				DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 33°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.				
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.			
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00			
0	10	2 45	2 34	2 25	2 16	2 08	1 59	1 51	1 44	1 36	1 32	1 25	0	10			
0	20	5 28	5 08	4 49	4 31	4 14	3 58	3 43	3 29	3 16	3 02	2 50	0	20			
0	30	8 08	7 38	7 11	6 44	6 19	5 55	5 32	5 12	4 52	4 32	4 14	0	30			
0	40	10 44	10 05	9 28	8 54	8 22	7 50	7 21	6 52	6 26	6 01	5 36	0	40			
0	50	13 14	12 26	11 42	11 00	10 20	9 42	9 06	8 31	7 59	7 27	6 57	0	50			
1	00	15 36	14 42	13 49	13 01	12 14	11 30	10 47	10 08	9 29	8 52	8 17	1	00			
1	10	17 52	16 50	15 52	14 57	14 04	13 13	12 25	11 40	10 56	10 14	9 34	1	10			
1	20	19 58	18 52	17 48	16 46	15 49	14 53	14 00	13 09	12 20	11 33	10 48	1	20			
1	30	21 57	20 45	19 37	18 31	17 28	16 27	15 30	14 35	13 40	12 49	12 00	1	30			
1	40	23 46	22 31	21 18	20 08	19 01	17 56	16 55	15 55	14 58	14 02	13 08	1	40			
1	50	25 27	24 09	22 53	21 39	20 29	19 20	18 15	17 12	16 10	15 11	14 13	1	50			
2	00	27 01	25 39	24 20	23 04	21 50	20 39	19 30	18 24	17 19	16 16	15 16	2	00			
2	10	28 25	27 02	25 40	24 22	23 06	21 51	20 40	19 30	18 23	17 18	16 15	2	10			
2	20	29 41	28 16	26 53	25 33	24 15	22 59	21 45	20 33	19 23	18 15	17 09	2	20			
2	30	30 49	29 23	27 59	26 35	25 16	24 00	22 45	21 31	20 19	19 10	18 01	2	30			
2	40	31 49	30 23	28 59	27 37	26 16	24 57	23 40	22 25	21 11	19 59	18 49	2	40			
2	50	32 43	31 18	29 53	28 29	27 08	25 48	24 31	23 14	21 59	20 45	19 33	2	50			
3	00	33 31	32 05	30 41	29 17	27 55	26 35	25 16	23 58	22 43	21 27	20 14	3	00			
3	10	34 12	32 42	31 22	29 59	28 37	27 16	25 57	24 38	23 21	22 05	20 51	3	10			
3	20	34 47	33 22	31 59	30 36	29 13	27 52	26 32	25 14	23 57	22 40	21 24	3	20			
3	30	35 17	33 53	32 30	31 07	29 46	28 24	27 04	25 45	24 28	23 11	21 54	3	30			
3	40	35 41	34 19	32 55	31 33	30 12	28 52	27 32	26 14	24 56	23 38	22 21	3	40			
3	50	36 01	34 39	33 17	31 56	30 35	29 15	27 56	26 37	25 19	24 01	22 45	3	50			
4	00	36 16	34 55	33 34	32 14	30 54	29 34	28 15	26 57	25 39	24 22	23 05	4	00			
4	10	36 26	35 07	33 47	32 27	31 09	29 49	28 31	27 13	25 56	24 38	23 22	4	10			
4	20	36 33	35 14	33 56	32 37	31 19	30 01	28 44	27 27	26 10	24 53	23 36	4	20			
4	30	36 35	35 18	34 01	32 43	31 26	30 09	28 53	27 36	26 19	25 03	23 47	4	30			
4	40	36 34	35 19	34 02	32 46	31 31	30 14	28 58	27 43	26 26	25 10	23 55	4	40			
4	50	36 30	35 15	34 00	32 45	31 30	30 15	29 00	27 45	26 30	25 15	24 01	4	50			
5	00	36 21	35 08	33 55	32 41	31 28	30 14	29 00	27 46	26 32	25 18	24 04	5	00			
5	10	36 11	34 59	33 47	32 34	31 21	30 09	28 56	27 44	26 30	25 17	24 04	5	10			
5	20	35 56	34 46	33 35	32 24	31 13	30 01	28 50	27 38	26 26	25 14	24 01	5	20			
5	30	35 39	34 31	33 22	32 11	31 01	29 51	28 41	27 30	26 18	25 07	23 57	5	30			
5	40	35 19	34 12	33 04	31 56	30 47	29 38	28 28	27 19	26 10	25 00	23 49	5	40			
5	50	34 57	33 52	32 45	31 38	30 30	29 22	28 15	27 06	25 58	24 49	23 40	5	50			
6	00	34 32	33 28	32 23	31 16	30 10	29 05	27 58	26 51	25 43	24 36	23 27	6	00			
6	10	34 05	33 02	31 58	30 53	29 49	28 44	27 38	26 33	25 27	24 21	23 13	6	10			
6	20	33 33	32 33	31 30	30 26	29 25	28 22	27 18	26 13	25 09	24 03	22 57	6	20			
6	30	33 03	32 02	31 00	30 00	28 58	27 56	26 54	25 50	24 47	23 43	22 40	6	30			
6	40	32 28	31 29	30 30	29 30	28 29	27 29	26 28	25 27	24 25	23 23	22 21	6	40			
6	50	31 51	30 54	29 56	28 57	27 59	27 00	26 01	25 00	23 59	22 58	21 58	6	50			
7	00	31 13	30 17	29 21	28 23	27 26	26 28	25 30	24 32	23 33	22 33	21 33	7	00			
7	10	30 32	29 36	28 43	27 47	26 52	25 55	24 58	24 02	23 04	22 06	21 07	7	10			
7	20	29 50	28 56	28 03	27 09	26 15	25 19	24 25	23 29	22 33	21 37	20 40	7	20			
7	30	29 05	28 13	27 21	26 28	25 36	24 43	23 50	22 56	22 01	21 06	20 11	7	30			
7	40	28 18	27 28	26 38	25 46	24 55	24 04	23 13	22 20	21 27	20 33	19 40	7	40			
7	50	27 29	26 41	25 52	25 03	24 14	23 24	22 33	21 43	20 52	20 00	19 09	7	50			
8	00	26 30	25 53	25 05	24 18	23 30	22 41	21 53	21 04	20 14	19 24	18 35	8	00			
8	10	25 48	25 09	24 16	23 30	22 44	21 58	21 11	20 23	19 36	18 48	17 59	8	10			
8	20	24 53	24 10	23 26	22 42	21 58	21 13	20 27	19 42	18 56	18 10	17 23	8	20			
8	30	23 58	23 17	22 35	21 51	21 09	20 26	19 43	18 59	18 15	17 30	16 45	8	30			
8	40	23 01	22 21	21 41	21 00	20 19	19 37	18 55	18 14	17 31	16 49	16 08	8	40			
8	50	22 03	21 25	20 45	20 06	19 27	18 48	18 07	17 28	16 47	16 08	15 25	8	50			
9	00	21 02	20 25	19 48	19 12	18 34	17 57	17 19	16 40	16 02	15 23	14 44	9	00			
9	10	20 01	19 26	18 51	18 16	17 40	17 04	16 28	15 52	15 15	14 38	14 01	9	10			
9	20	18 58	18 26	17 52	17 18	16 45	16 10	15 36	15 02	14 27	13 53	13 17	9	20			
9	30	17 54	17 23	16 52	16 19	15 47	15 16	14 43	14 11	13 39	13 06	12 33	9	30			
9	40	16 48	16 19	15 49	15 20	14 50	14 20	13 50	13 19	12 48	12 18	11 47	9	40			
9	50	15 41	15 15	14 47	14 19	13 51	13 23	12 55	12 27	11 58	11 29	11 00	9	50			
10	00	14 33	14 08	13 43	13 17	12 51	12 26	11 59	11 33	11 07	10 39	10 13	10	00			
10	10	13 24	13 01	12 38	12 14	11 50	11 26	11 03	10 38	10 14	9 49	9 24	10	10			
10	20	12 15	11 54	11 32	11 10	10 48	10 27	10 05	9 43	9 20	8 58	8 35	10	20			
10	30	11 04	10 45	10 25	10 06	9 46	9 26	9 07	8 47	8 27	8 06	7 46	10	30			
10	40	9 53	9 35	9 18	9 00	8 43	8 25	8 07	7 50	7 32	7 14	6 56	10	40			
10	50	8 42	8 25	8 10	7 55	7 39	7 23	7 08	6 53	6 36	6 21	6 05	10	50			
11	00	7 27	7 14	7 00	6 47	6 35	6 21	6 07	5 54	5 40	5 27	5 14	11	00			
11	10	6 13	6 03	5 52	5 40	5 29	5 18	5 07	4 56	4 45	4 33	4 22	11	10			
11	20	4 59	4 50	4 42	4 33	4 24	4 15	4 07	3 57	3 48	3 39	3 30	11	20			
11	30	3 45	3 38	3 32	3 25	3 18	3 11	3 04	2 59	2 52	2 45	2 37	11	30			
11	40	2 30	2 26	2 21	2 17	2 12	2 08	2 03	1 59	1 54	1 49	1 45	11	40			
11	50	1 16	1 13	1 11	1 08	1 06	1 04	1 02	1 00	0 58	0 55	0 53	11	50			
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00			

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 34°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 34°.	
Hour Angle.	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	24°	25°
h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
0 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0 00	180 00	180 00
0 10	167 02	165 45	164 13	162 15	159 41	156 15	151 24	144 13	132 49	114 35	89 18	63 25	0 10	167 02	165 45
0 20	155 07	152 55	150 18	147 06	143 09	138 13	131 58	124 04	114 07	102 06	86 36	74 57	0 20	155 07	152 55
0 30	144 50	142 08	138 59	135 19	131 02	126 06	120 08	113 19	105 34	97 00	87 54	78 41	0 30	144 50	142 08
0 40	136 17	133 23	130 07	126 27	122 19	117 42	112 32	106 50	100 39	94 03	87 12	80 16	0 40	136 17	133 23
0 50	129 15	126 23	123 11	119 43	115 54	111 45	107 17	102 27	97 21	91 59	86 30	80 56	0 50	129 15	126 23
1 00	123 28	120 41	117 41	114 28	111 00	107 18	103 22	99 13	94 53	90 24	85 47	81 08	1 00	123 28	120 41
1 10	118 38	116 00	113 13	110 14	107 06	103 47	100 18	96 40	92 54	89 02	85 05	81 05	1 10	118 38	116 00
1 20	114 34	112 06	109 30	106 47	103 54	100 55	97 48	94 34	91 15	87 50	84 22	80 52	1 20	114 34	112 06
1 30	111 05	108 46	106 21	103 49	101 18	98 29	95 40	92 46	89 47	86 45	83 39	80 31	1 30	111 05	108 46
1 40	108 02	105 52	103 37	101 18	98 53	96 23	93 49	91 10	88 29	85 43	82 56	80 07	1 40	108 02	105 52
1 50	105 23	103 20	101 13	99 03	96 49	94 31	92 09	89 45	87 17	84 46	82 13	79 38	1 50	105 23	103 20
2 00	102 58	101 03	99 05	97 03	94 58	92 49	90 39	88 24	86 06	83 49	81 29	79 06	2 00	102 58	101 03
2 10	100 49	99 00	97 07	95 14	93 17	91 17	89 15	87 11	85 04	82 55	80 45	78 33	2 10	100 49	99 00
2 20	98 49	97 06	95 21	93 33	91 44	89 51	87 57	86 00	84 02	82 02	80 00	77 58	2 20	98 49	97 06
2 30	96 59	95 21	93 42	91 59	90 16	88 30	86 43	84 53	83 01	81 09	79 15	77 30	2 30	96 59	95 21
2 40	95 16	93 44	92 09	90 32	88 53	87 13	85 32	83 48	82 03	80 17	78 30	76 41	2 40	95 16	93 44
2 50	93 39	92 11	90 40	89 09	87 35	86 00	84 23	82 46	81 06	79 25	77 44	76 01	2 50	93 39	92 11
3 00	92 08	90 43	89 16	87 48	86 20	84 49	83 17	81 44	80 10	78 34	76 58	75 20	3 00	92 08	90 43
3 10	90 41	89 19	87 56	86 32	85 07	83 40	82 13	80 44	79 13	77 43	76 10	74 37	3 10	90 41	89 19
3 20	89 17	87 58	86 39	85 18	83 57	82 34	81 10	79 45	78 18	76 51	75 23	73 54	3 20	89 17	87 58
3 30	87 55	86 40	85 24	84 06	82 47	81 27	80 07	78 45	77 23	75 59	74 35	73 10	3 30	87 55	86 40
3 40	86 37	85 24	84 10	82 58	81 47	80 33	79 19	78 04	76 48	75 32	74 15	72 57	3 40	86 37	85 24
3 50	85 21	84 10	82 58	81 47	80 33	79 19	78 04	76 48	75 32	74 15	72 57	71 38	3 50	85 21	84 10
4 00	84 06	82 58	81 49	80 38	79 27	78 16	77 04	75 51	74 37	73 22	72 07	70 51	4 00	84 06	82 58
4 10	82 53	81 46	80 39	79 31	78 22	77 12	76 02	74 52	73 40	72 28	71 15	70 02	4 10	82 53	81 46
4 20	81 39	80 35	79 27	78 24	77 17	76 09	75 02	73 53	72 44	71 34	70 23	69 12	4 20	81 39	80 35
4 30	80 28	79 25	78 21	77 17	76 12	75 07	74 00	72 55	71 47	70 39	69 31	68 22	4 30	80 28	79 25
4 40	79 17	78 16	77 14	76 11	75 08	74 04	73 01	71 58	70 55	69 43	68 37	67 30	4 40	79 17	78 16
4 50	78 06	77 07	76 05	75 04	74 03	73 01	71 58	70 55	69 52	68 47	67 42	66 37	4 50	78 06	77 07
5 00	76 55	75 57	74 58	73 58	72 58	71 57	70 55	69 54	68 52	67 50	66 46	65 44	5 00	76 55	75 57
5 10	75 45	74 47	73 48	72 51	71 52	70 53	69 53	68 53	67 51	66 50	65 50	64 48	5 10	75 45	74 47
5 20	74 33	73 37	72 40	71 44	70 46	69 47	68 48	67 51	66 51	65 52	64 52	63 52	5 20	74 33	73 37
5 30	73 22	72 27	71 31	70 35	69 39	68 42	67 45	66 48	65 50	64 51	63 52	62 53	5 30	73 22	72 27
5 40	72 11	71 16	70 21	69 26	68 31	67 36	66 39	65 43	64 46	63 49	62 52	61 54	5 40	72 11	71 16
5 50	70 58	70 05	69 11	68 17	67 23	66 28	65 33	64 38	63 43	62 47	61 50	60 54	5 50	70 58	70 05
6 00	69 44	68 52	67 59	67 06	66 13	65 19	64 25	63 32	62 37	61 42	60 47	59 52	6 00	69 44	68 52
6 10	68 30	67 38	66 46	65 54	65 02	64 09	63 16	62 23	61 29	60 36	59 42	58 48	6 10	68 30	67 38
6 20	67 15	66 24	65 32	64 41	63 50	63 08	62 17	61 25	60 34	59 42	58 50	57 59	6 20	67 15	66 24
6 30	66 00	65 08	64 17	63 27	62 37	61 45	60 54	60 04	59 12	58 20	57 29	56 39	6 30	66 00	65 08
6 40	64 46	63 51	63 01	62 11	61 21	60 31	59 42	58 52	58 00	57 10	56 19	55 28	6 40	64 46	63 51
6 50	63 30	62 32	61 43	60 54	60 05	59 16	58 27	57 38	56 47	55 58	55 08	54 17	6 50	63 30	62 32
7 00	62 00	61 11	60 23	59 35	58 47	57 58	57 10	56 22	55 33	54 44	53 55	53 06	7 00	62 00	61 11
7 10	60 36	59 49	59 01	58 13	57 27	56 39	55 51	55 03	54 15	53 26	52 38	51 50	7 10	60 36	59 49
7 20	59 11	58 25	57 38	56 51	56 05	55 18	54 31	53 45	52 57	52 10	51 23	50 37	7 20	59 11	58 25
7 30	57 45	56 59	56 12	55 27	54 40	53 54	53 09	52 22	51 37	50 51	50 04	49 19	7 30	57 45	56 59
7 40	56 15	55 30	54 44	53 59	53 15	52 29	51 44	50 59	50 14	49 29	48 43	47 58	7 40	56 15	55 30
7 50	54 44	54 00	53 15	52 30	51 46	51 02	50 17	49 33	48 48	48 05	47 20	46 37	7 50	54 44	54 00
8 00	53 10	52 26	51 42	50 59	50 15	49 31	48 48	48 05	47 21	46 38	45 55	45 12	8 00	53 10	52 26
8 10	51 33	50 51	50 07	49 24	48 41	47 58	47 17	46 35	45 51	45 10	44 27	43 45	8 10	51 33	50 51
8 20	49 53	49 12	48 29	47 47	47 05	46 23	45 42	45 01	44 19	43 39	42 57	42 16	8 20	49 53	49 12
8 30	48 12	47 31	46 48	46 07	45 26	44 46	44 05	43 26	42 44	42 05	41 24	40 45	8 30	48 12	47 31
8 40	46 26	45 46	45 05	44 25	43 45	43 05	42 26	41 47	41 07	40 29	39 49	39 11	8 40	46 26	45 46
8 50	44 38	43 58	43 19	42 39	42 00	41 22	40 43	40 06	39 27	38 50	38 12	37 35	8 50	44 38	43 58
9 00	42 46	42 07	41 29	40 51	40 13	39 36	38 59	38 21	37 45	37 08	36 31	35 56	9 00	42 46	42 07
9 10	40 50	40 13	39 36	38 59	38 23	37 46	37 10	36 34	35 59	35 24	34 49	34 14	9 10	40 50	40 13
9 20	38 52	38 17	37 40	37 05	36 29	35 54	35 20	34 46	34 11	33 37	33 04	32 31	9 20	38 52	38 17
9 30	36 50	36 15	35 40	35 07	34 32	33 59	33 26	32 53	32 20	31 48	31 16	30 44	9 30	36 50	36 15
9 40	34 44	34 11	33 37	33 05	32 32	32 00	31 29	30 58	30 27	29 55	29 25	28 55	9 40	34 44	34 11
9 50	32 35	32 03	31 32	31 00	30 29	29 59	29 29	28 59	28 30	28 00	27 32	27 04	9 50	32 35	32 03
10 00	30 22	29 52	29 22	28 52	28 23	27 55	27 27	26 59	26 31	26 04	25 36	25 09	10 00	30 22	29 52
10 10	28 05	27 37	27 09	26 42	26 14	25 47	25 21	24 55	24 29	24 03	23 38	23 13	10 10	28 05	27 37
10 20	25 45	25 20	24 52	24 27	24 03	23 37	23 12	22 49	22 25	22 01	21 38	21 15	10 20	25 45	25 20
10 30	23 22	22 58	22 34	22 10	21 48	21 25	21 02	20 40	20 18	19 56	19 35	19 14	10 30	23 22	22 58
10 40	20 55	20 34	20 12	19 50	19 30	19 09	18 49	18 29	18 09	17 49	17 30	17 12	10 40	20 55	20 34
10 50	18 26	18 07	17 47	17 27	17 09	16 51	16 33	16 15	15 58	15 41	15 23	15 06	10 50	18 26	18 07
11 00	15 53	15 36	15 19	15 03	14 47	14 31	14 16	14 00	13 44	13 30	13 15	13 00	11 00	15 53	15 36
11 10	13 19	13 04	12 49	12 36	12 22	12 09	11 56	11 43	11 30	11 17	11 05	10 53	11 10	13 19	13 04
11 20	10 41	10 30	10 18	10 07	9 56	9 45	9 34	9 24	9 13	9 03	8 54	8 44	11 20	10 41	10 30
11 30	8 02	7 54	7 45	7 37	7 29	7 20	7 12	7 04	6 57	6 48	6 40	6 34	11 30	8 02	7 54
11 40	5 22	5 17	5 11	5 05	4 59	4 54	4 48	4 44	4 38	4 33	4 28	4 22	11 40	5 22	5 17
11 50	2 41	2 39	2 32	2 27	2 22	2 17	2 12	2 07	2 02						

AZIMUTH OR TRUE BEARING.

LATITUDE 34°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 34°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	2 51	2 40	2 30	2 20	2 11	2 03	1 55	1 48	1 40	1 33	1 27		10	
	20	5 39	5 18	4 58	4 40	4 22	4 05	3 49	3 34	3 20	3 07	2 54		20	
	30	8 25	7 53	7 24	6 56	6 30	6 05	5 42	5 20	4 59	4 39	4 20		30	
	40	11 06	10 25	9 46	9 10	8 35	8 03	7 33	7 04	6 36	6 10	5 43		40	
	50	13 40	12 50	12 03	11 19	10 38	9 58	9 20	8 45	8 11	7 38	7 07		50	
1	00	16 06	15 09	14 15	13 24	12 35	11 48	11 05	10 23	9 43	9 05	8 29	1	00	
	10	18 26	17 22	16 21	15 22	14 27	13 34	12 45	11 57	11 12	10 28	9 47		10	
	20	20 36	19 25	18 19	17 15	16 14	15 17	14 21	13 28	12 38	11 49	11 02		20	
	30	22 36	21 21	20 09	19 01	17 55	16 53	15 52	14 55	14 00	13 07	12 16		30	
	40	24 28	23 08	21 53	20 40	19 30	18 24	17 20	16 18	15 18	14 20	13 25		40	
	50	26 10	24 47	23 28	22 13	20 59	19 48	18 41	17 35	16 32	15 31	14 31		50	
2	00	27 44	26 19	24 57	23 38	22 21	21 08	19 57	18 48	17 42	16 37	15 35	2	00	
	10	29 41	27 41	26 17	24 56	23 37	22 22	21 08	19 56	18 46	17 39	16 33		10	
	20	30 23	28 56	27 30	26 08	24 48	23 29	22 14	21 00	19 48	18 38	17 30		20	
	30	31 31	30 04	28 37	27 13	25 52	24 31	23 14	21 58	20 45	19 32	18 21		30	
	40	32 32	31 03	29 36	28 12	26 49	25 28	24 09	22 51	21 36	20 22	19 10		40	
	50	33 26	31 57	30 30	29 04	27 41	26 20	24 59	23 40	22 24	21 08	19 55		50	
3	00	34 12	32 44	31 17	29 52	28 28	27 05	25 45	24 25	23 07	21 51	20 36	3	00	
	10	34 52	33 25	31 58	30 33	29 08	27 46	26 25	25 05	23 46	22 29	21 12		10	
	20	35 27	34 00	32 34	31 09	29 45	28 22	27 01	25 41	24 22	23 04	21 46		20	
	30	35 55	34 29	33 03	31 40	30 16	28 53	27 33	26 12	24 53	23 34	22 17		30	
	40	36 18	34 54	33 29	32 06	30 43	29 21	28 00	26 39	25 19	24 01	22 43		40	
	50	36 36	35 13	33 49	32 27	31 05	29 43	28 23	27 02	25 43	24 24	23 06		50	
4	00	36 50	35 28	34 05	32 44	31 22	30 02	28 42	27 22	26 03	24 44	23 25	4	00	
	10	37 06	35 38	34 17	32 57	31 36	30 17	28 57	27 37	26 19	25 01	23 42		10	
	20	37 05	35 45	34 24	33 05	31 46	30 27	29 09	27 50	26 32	25 14	23 56		20	
	30	37 06	35 47	34 29	33 11	31 52	30 34	29 17	27 59	26 42	25 24	24 07		30	
	40	37 04	35 47	34 29	33 12	31 55	30 38	29 21	28 05	26 48	25 31	24 15		40	
	50	36 58	35 42	34 26	33 10	31 54	30 39	29 23	28 07	26 52	25 35	24 19		50	
5	00	36 48	35 33	34 19	33 05	31 50	30 36	29 21	28 07	26 52	25 37	24 21	5	00	
	10	36 36	35 23	34 10	32 57	31 43	30 30	29 16	28 03	26 49	25 35	24 22		10	
	20	36 20	35 09	33 57	32 45	31 34	30 22	29 10	27 57	26 44	25 31	24 19		20	
	30	36 02	34 53	33 43	32 33	31 22	30 11	29 00	27 48	26 36	25 25	24 13		30	
	40	35 41	34 32	33 24	32 16	31 06	29 57	28 47	27 37	26 26	25 15	24 04		40	
	50	35 17	34 11	33 03	31 57	30 48	29 40	28 31	27 23	26 14	25 04	23 55		50	
6	00	34 52	33 46	32 40	31 34	30 28	29 21	28 14	27 06	25 59	24 51	23 42	6	00	
	10	34 23	33 19	32 15	31 10	30 05	29 00	27 54	26 49	25 42	24 35	23 27		10	
	20	33 52	32 50	31 47	30 44	29 40	28 36	27 32	26 28	25 22	24 17	23 11		20	
	30	33 18	32 17	31 16	30 15	29 13	28 10	27 08	26 04	25 01	23 56	22 52		30	
	40	32 43	31 44	30 44	29 44	28 43	27 43	26 41	25 40	24 37	23 34	22 31		40	
	50	32 05	31 08	30 09	29 11	28 12	27 12	26 12	25 12	24 12	23 11	22 09		50	
7	00	31 26	30 30	29 33	28 36	27 38	26 40	25 42	24 43	23 44	22 45	21 44	7	00	
	10	30 44	29 49	28 54	27 58	27 02	26 06	25 10	24 12	23 15	22 17	21 18		10	
	20	30 01	29 07	28 14	27 20	26 25	25 31	24 35	23 39	22 43	21 47	20 50		20	
	30	29 15	28 23	27 31	26 39	25 46	24 52	23 59	23 05	22 11	21 16	20 21		30	
	40	28 27	27 37	26 47	25 56	25 04	24 13	23 21	22 29	21 37	20 44	19 50		40	
	50	27 38	26 49	26 00	25 11	24 22	23 33	22 42	21 51	21 00	20 09	19 16		50	
8	00	26 47	26 00	25 13	24 26	23 37	22 49	22 01	21 12	20 22	19 33	18 42	8	00	
	10	25 55	25 09	24 24	23 37	22 51	22 06	21 19	20 31	19 44	18 55	18 07		10	
	20	25 00	24 16	23 32	22 48	22 04	21 20	20 34	19 49	19 03	18 17	17 30		20	
	30	24 04	23 22	22 40	21 58	21 15	20 32	19 49	19 05	18 21	17 37	16 52		30	
	40	23 07	22 27	21 46	21 05	20 24	19 43	19 02	18 19	17 38	16 55	16 11		40	
	50	22 06	21 29	20 51	20 12	19 32	18 53	18 13	17 33	16 53	16 12	15 31		50	
9	00	21 06	20 30	19 53	19 16	18 39	18 02	17 24	16 45	16 07	15 28	14 49	9	00	
	10	20 05	19 30	18 55	18 19	17 44	17 08	16 32	15 56	15 20	14 43	14 06		10	
	20	19 01	18 29	17 55	17 22	16 49	16 15	15 41	15 06	14 32	13 57	13 22		20	
	30	17 57	17 26	16 54	16 22	15 51	15 20	14 47	14 15	13 42	13 09	12 37		30	
	40	16 51	16 22	15 52	15 22	14 53	14 23	13 53	13 23	12 52	12 21	11 50		40	
	50	15 43	15 17	14 49	14 21	13 53	13 26	12 58	12 29	12 01	11 32	11 04		50	
10	00	14 36	14 11	13 45	13 19	12 54	12 28	12 02	11 36	11 09	10 42	10 15	10	00	
	10	13 26	13 03	12 40	12 16	11 52	11 29	11 05	10 41	10 16	9 52	9 27		10	
	20	12 16	11 55	11 34	11 12	10 50	10 29	10 07	9 45	9 23	9 00	8 36		20	
	30	11 06	10 46	10 27	10 07	9 48	9 28	9 08	8 48	8 28	8 09	7 48		30	
	40	9 53	9 36	9 19	9 01	8 44	8 27	8 09	7 51	7 34	7 16	6 58		40	
	50	8 41	8 26	8 11	7 55	7 40	7 25	7 09	6 54	6 39	6 22	6 06		50	
11	00	7 28	7 15	7 01	6 48	6 36	6 22	6 09	5 55	5 42	5 29	5 15	11	00	
	10	6 14	6 03	5 52	5 41	5 31	5 19	5 08	4 57	4 45	4 34	4 23		10	
	20	5 00	4 51	4 42	4 33	4 24	4 16	4 07	3 58	3 49	3 40	3 31		20	
	30	3 45	3 38	3 32	3 25	3 19	3 12	3 05	2 58	2 52	2 45	2 38		30	
	40	2 30	2 26	2 22	2 17	2 12	2 08	2 04	1 59	1 54	1 51	1 46		40	
	50	1 15	1 13	1 11	1 09	1 06	1 04	1 02	1 00	0 57	0 55	0 53		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 35°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 35°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.			
h.	m.	0 /		0 /		0 /		0 /		0 /		0 /		0 /		h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00	00	00		
0	00	180	00	180	00	180	00	180	00	180	00	180	00	180	00	0	00
0	10	168	11	167	08	165	53	164	20	162	24	159	52	151	39	1	00
0	20	157	08	155	18	153	07	150	30	147	18	143	23	138	29	1	10
0	30	147	24	145	03	142	20	139	16	135	34	131	17	126	16	1	20
0	40	139	03	136	29	133	35	130	20	126	41	122	32	117	53	1	30
0	50	132	03	129	26	126	33	123	23	119	53	116	04	111	55	1	40
1	00	126	11	123	37	120	50	117	50	114	35	111	07	107	24	1	50
1	10	121	14	118	46	116	07	113	19	110	21	107	11	103	50	2	00
1	20	117	00	114	40	112	11	109	34	106	50	103	56	99	48	2	10
1	30	113	21	111	08	108	49	106	23	103	51	101	12	98	28	2	20
1	40	110	09	108	04	105	54	103	37	101	17	98	50	96	20	2	30
1	50	107	20	105	22	103	19	101	12	99	01	96	45	94	26	2	40
2	00	104	47	102	55	101	00	99	01	96	59	94	52	92	44	2	50
2	10	102	30	100	44	98	55	97	03	95	07	93	09	91	09	3	00
2	20	100	23	98	42	97	00	95	13	93	26	91	35	89	42	3	10
2	30	98	26	96	51	95	13	93	34	91	50	90	05	88	19	3	20
2	40	96	38	95	06	93	33	91	57	90	21	88	41	87	00	3	30
2	50	94	56	93	28	91	59	90	28	88	56	87	21	85	46	3	40
3	00	93	18	91	54	90	30	89	03	87	34	86	04	84	34	3	50
3	10	91	46	90	26	89	04	87	41	86	16	84	50	83	23	4	00
3	20	90	18	89	01	87	42	86	22	85	01	83	38	82	08	4	10
3	30	88	52	87	38	86	22	85	05	83	47	82	08	81	15	4	20
3	40	87	30	86	10	85	04	83	50	82	35	81	19	80	01	4	30
3	50	86	10	85	00	83	49	82	37	81	25	80	11	78	57	4	40
4	00	84	52	83	43	82	35	81	25	80	15	79	04	77	52	4	50
4	10	83	34	82	28	81	22	80	14	79	07	77	57	76	47	5	00
4	20	82	18	81	15	80	10	79	05	77	58	76	51	75	43	5	10
4	30	81	05	80	01	78	59	77	55	76	50	75	46	74	40	5	20
4	40	79	50	78	49	77	48	76	46	75	42	74	39	73	35	5	30
4	50	78	37	77	37	76	37	75	36	74	35	73	33	72	31	5	40
5	00	77	23	76	24	75	26	74	26	73	27	72	27	71	26	5	50
5	10	76	10	75	12	74	14	73	16	72	19	71	20	70	20	6	00
5	20	74	57	74	00	73	04	72	07	71	10	70	13	69	15	6	10
5	30	73	43	72	47	71	52	70	56	69	05	68	08	67	00	6	20
5	40	72	28	71	34	70	39	69	45	68	50	67	55	66	04	6	30
5	50	71	14	70	20	69	27	68	34	67	40	66	46	65	52	6	40
6	00	69	58	69	05	68	13	67	21	66	28	65	35	64	42	6	50
6	10	68	44	67	50	66	59	66	07	65	15	64	23	63	32	7	00
6	20	67	24	66	33	65	43	64	52	64	01	63	10	62	19	7	10
6	30	66	06	65	16	64	26	63	46	62	55	61	55	61	05	7	20
6	40	64	46	63	57	63	07	62	18	61	28	60	39	59	50	7	30
6	50	63	24	62	36	61	48	60	59	60	10	59	22	58	34	7	40
7	00	62	02	61	14	60	26	59	38	58	51	57	15	56	27	7	50
7	10	60	37	59	49	59	02	58	16	57	08	56	19	55	07	8	00
7	20	59	11	58	24	57	38	56	52	56	05	55	19	54	32	8	10
7	30	57	42	56	56	56	11	55	25	54	39	53	55	53	09	8	20
7	40	56	11	55	26	54	41	53	57	53	12	52	26	51	43	8	30
7	50	54	38	53	54	53	10	52	27	51	42	50	59	50	15	8	40
8	00	53	03	52	20	51	37	50	53	50	10	49	28	48	02	8	50
8	10	51	25	50	42	50	01	49	18	48	36	47	11	46	29	9	00
8	20	49	05	49	03	48	21	47	40	46	59	45	17	45	37	9	10
8	30	48	42	47	19	46	39	45	59	44	39	43	59	43	20	9	20
8	40	46	16	45	34	44	55	44	15	43	37	42	58	41	40	9	30
8	50	44	25	43	46	43	08	42	29	41	51	41	13	40	36	9	40
9	00	42	33	41	55	41	18	40	40	40	03	39	26	38	50	9	50
9	10	40	37	40	01	39	24	38	48	38	12	37	37	37	01	10	00
9	20	38	38	38	03	37	26	36	52	36	19	35	44	35	11	10	10
9	30	36	36	36	01	35	28	34	55	34	21	33	48	33	16	10	20
9	40	34	30	33	57	33	25	32	53	32	22	31	50	31	19	10	30
9	50	32	21	31	50	31	20	30	49	30	19	29	49	29	19	10	40
10	00	30	08	29	39	29	10	28	41	28	12	27	45	27	18	10	50
10	10	27	52	27	24	26	55	26	03	25	37	25	12	24	46	11	00
10	20	25	33	25	06	24	41	24	16	23	52	23	28	23	03	11	10
10	30	23	10	22	46	22	23	22	00	21	37	21	15	20	53	11	20
10	40	20	44	20	22	20	01	19	40	19	20	19	00	18	40	11	30
10	50	18	15	17	56	17	37	17	19	17	01	16	43	16	25	11	40
11	00	15	44	15	28	15	11	14	55	14	39	14	24	14	08	11	50
11	10	13	10	12	56	12	42	12	30	12	16	12	03	11	50	12	00
11	20	10	35	10	23	10	12	10	02	9	51	9	41	9	39	12	10
11	30	7	58	7	49	7	41	7	32	7	24	7	16	7	09	12	20
11	40	5	20	5	13	5	08	5	02	4	57	4	51	4	46	12	30
11	50	2	40	2	37	2	34	2	31	2	28	2	26	2	23	12	40
12	00	0	00	0	00	0	00	0	00	0	00	0	00	0	00	12	50

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the Latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 35°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 35°.	
Hour Angle.		26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	36°	37°	Hour Angle.	
h. m.	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	h. m.	0 00
	10	63 07	44 36	33 05	25 47	20 53	17 25	14 51	12 53	11 19	10 00	9 00	8 07		10
	20	74 45	62 14	51 48	43 26	36 56	31 46	27 40	24 21	21 38	19 23	17 24	15 51		20
	30	78 32	69 35	61 21	54 02	47 43	42 18	37 52	33 46	30 24	27 32	25 01	22 51		30
	40	80 07	73 12	66 36	60 27	54 48	49 43	45 10	41 06	37 31	34 20	31 30	28 59		40
	50	80 47	75 10	69 42	64 29	59 32	54 54	50 38	46 43	43 08	39 52	36 54	34 12		50
1	00	80 39	76 16	71 37	67 06	62 45	58 36	54 39	50 58	47 31	44 19	41 19	38 35	1	00
	10	80 55	76 51	72 49	68 51	65 00	61 15	57 38	54 12	50 56	47 52	44 57	42 13		10
	20	80 40	77 06	73 33	70 01	66 33	63 10	59 52	56 40	53 37	50 40	47 52	45 13		20
	30	80 20	77 09	73 57	70 47	67 39	64 33	61 31	58 34	55 42	52 55	50 14	47 40		30
	40	79 54	77 01	74 08	71 15	68 22	65 32	62 45	60 00	57 19	54 41	52 09	49 42		40
	50	79 25	76 47	74 08	71 29	68 51	66 14	63 38	61 04	58 34	56 06	53 40	51 19		50
2	00	78 52	76 27	74 00	71 34	69 08	66 42	64 17	61 53	59 31	57 11	54 52	52 39	2	00
	10	78 18	75 53	73 48	71 31	69 15	66 59	64 43	62 28	59 14	57 02	54 51	52 42		10
	20	77 40	75 35	73 29	71 21	69 14	67 07	64 59	62 51	60 46	58 40	56 36	54 32		20
	30	77 03	75 05	73 06	71 07	69 07	67 07	65 06	63 06	61 07	59 07	57 09	55 11		30
	40	76 23	74 31	72 40	70 47	68 55	67 01	65 07	63 13	61 20	59 26	57 32	55 40		40
	50	75 41	73 56	72 11	70 24	68 37	66 49	65 01	63 13	61 25	59 37	57 48	56 01		50
3	00	74 59	73 20	71 39	69 59	68 16	66 34	64 51	63 07	61 24	59 40	57 57	56 14	3	00
	10	74 16	72 42	71 06	69 29	67 52	66 14	64 36	62 57	61 18	59 39	58 00	56 21		10
	20	73 32	72 01	70 21	68 43	67 25	65 46	64 17	62 42	61 08	59 31	57 57	56 22		20
	30	72 46	71 20	69 52	68 23	66 55	65 25	63 55	62 24	60 53	59 22	57 50	56 19		30
	40	72 00	70 37	69 12	67 47	66 22	64 56	63 30	62 03	60 35	59 06	57 37	56 09		40
	50	71 13	69 52	68 31	67 10	65 48	64 25	63 01	61 36	60 12	58 47	57 22	55 56		50
4	00	70 24	69 07	67 49	66 30	65 11	63 51	62 30	61 09	59 48	58 26	57 03	55 40	4	00
	10	69 34	68 20	67 05	65 48	64 31	63 14	61 56	60 38	59 19	58 00	56 40	55 20		10
	20	68 44	67 32	66 18	65 05	63 51	62 36	61 21	60 05	58 49	57 31	56 14	54 56		20
	30	67 52	66 42	65 32	64 21	63 09	61 56	60 43	59 29	58 16	57 00	55 46	54 30		30
	40	66 59	65 50	64 43	63 34	62 25	61 14	60 04	58 52	57 40	56 27	55 15	54 01		40
	50	66 06	65 00	63 53	62 46	61 39	60 30	59 22	58 12	57 02	55 52	54 41	53 29		50
5	00	65 11	64 06	63 02	61 56	60 51	59 44	58 38	57 30	56 22	55 13	54 04	52 55	5	00
	10	64 15	63 12	62 09	61 05	60 01	58 57	57 52	56 46	55 40	54 33	53 26	52 19		10
	20	63 17	62 16	61 15	60 12	59 10	58 07	57 04	56 00	54 55	53 51	52 45	51 40		20
	30	62 19	61 20	60 19	59 18	58 18	57 16	56 15	55 12	54 09	53 07	52 03	50 59		30
	40	61 25	60 26	59 22	58 22	57 23	56 23	55 23	54 22	53 21	52 22	51 18	50 15		40
	50	60 17	59 21	58 23	57 28	56 28	55 29	54 30	53 31	52 31	51 31	50 31	49 30		50
6	00	59 15	58 19	57 23	56 26	55 30	54 33	53 35	52 37	51 40	50 42	49 42	48 42	6	00
	10	58 14	57 18	56 21	55 25	54 30	53 35	52 39	51 42	50 45	49 48	48 51	47 53		10
	20	57 04	56 11	55 15	54 19	53 27	52 35	51 41	50 45	49 50	48 52	47 57	46 58		20
	30	55 57	55 05	54 13	53 19	52 27	51 34	50 40	49 46	48 50	47 57	47 02	46 06		30
	40	54 48	53 57	53 06	52 14	51 23	50 31	49 38	48 46	47 52	47 00	46 05	45 12		40
	50	53 37	52 48	51 57	51 06	50 16	49 25	48 34	47 43	46 51	46 00	45 07	44 15		50
7	00	52 25	51 36	50 47	49 57	49 08	48 18	47 28	46 38	45 48	44 57	44 06	43 15	7	00
	10	51 10	50 22	49 34	48 46	47 58	47 09	46 21	45 31	44 42	43 53	43 03	42 13		10
	20	49 54	49 07	48 21	47 33	46 46	45 58	45 11	44 23	43 36	42 47	41 58	41 10		20
	30	48 35	47 49	47 04	46 18	45 32	44 46	44 00	43 13	42 27	41 39	40 52	40 05		30
	40	47 16	46 31	45 46	45 01	44 16	43 32	42 46	42 01	41 16	40 30	39 43	38 57		40
	50	45 54	45 10	44 26	43 42	42 58	42 14	41 30	40 46	40 02	39 17	38 34	37 49		50
8	00	44 29	43 46	43 03	42 20	41 38	40 55	40 12	39 29	38 46	38 04	37 21	36 38	8	00
	10	43 03	42 21	41 40	40 58	40 16	39 35	38 52	38 12	37 30	36 48	35 67	35 24		10
	20	41 33	40 53	40 13	39 33	38 53	38 12	37 31	36 51	36 11	35 31	34 51	34 10		20
	30	40 02	39 23	38 43	38 05	37 26	36 47	36 08	35 29	34 50	34 10	33 32	32 53		30
	40	38 29	37 50	37 13	36 35	35 58	35 19	34 42	34 04	33 27	32 49	32 11	31 34		40
	50	36 53	36 16	35 40	35 03	34 27	33 51	33 15	32 38	32 02	31 25	30 49	30 13		50
9	00	35 15	34 39	34 05	33 29	32 55	32 19	31 44	31 09	30 35	30 00	29 26	28 51	9	00
	10	33 34	33 00	32 26	31 52	31 20	30 46	30 13	29 39	29 06	28 32	28 00	27 26		10
	20	31 52	31 19	30 46	30 14	29 42	29 11	28 39	28 07	27 35	27 03	26 32	26 00		20
	30	30 09	29 35	29 04	28 33	28 03	27 32	27 03	26 32	26 02	25 32	25 02	24 32		30
	40	28 28	27 49	27 20	26 51	26 23	25 53	25 24	24 56	24 28	23 59	23 31	23 03		40
	50	26 48	26 00	25 33	25 06	24 39	24 12	23 45	23 18	22 51	22 24	21 58	21 31		50
10	00	24 36	24 10	23 45	23 19	22 54	22 29	22 03	21 38	21 13	20 48	20 24	19 59	10	00
	10	22 43	22 18	21 54	21 30	21 07	20 43	20 19	19 56	19 33	19 10	18 48	18 25		10
	20	20 46	20 24	20 01	19 40	19 18	18 56	18 35	18 14	17 52	17 31	17 10	16 49		20
	30	18 47	18 27	18 07	17 47	17 27	17 08	16 48	16 28	16 09	15 50	15 32	15 13		30
	40	16 46	16 29	16 10	15 53	15 35	15 18	15 00	14 43	14 25	14 08	13 51	13 34		40
	50	14 45	14 29	14 13	13 57	13 41	13 26	13 11	12 55	12 40	12 25	12 10	11 55		50
11	00	12 41	12 27	12 14	12 00	11 47	11 33	11 19	11 06	10 54	10 41	10 28	10 14	11	00
	10	10 37	10 25	10 14	10 02	9 50	9 39	9 29	9 17	9 06	8 55	8 44	8 34		10
	20	8 31	8 21	8 12	8 03	7 54	7 45	7 36	7 27	7 18	7 09	7 00	6 51		20
	30	6 24	6 17	6 10	6 03	5 56	5 49	5 42	5 36	5 29	5 22	5 16	5 09		30
	40	4 16	4 12	4 07	4 02	3 56	3 53	3 48	3 44	3 40	3 35	3 30	3 26		40
	50	2 08	2 06	2 03	2 01	1 59	1 57	1 54	1 52	1 50	1 48	1 46	1 44		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different names, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 35°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 35°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00		
	10	7 23	6 44	6 11	5 40	5 15	5 51	4 30	4 11	3 54	3 38	3 22	3 10		10
	20	14 27	13 14	12 09	11 12	10 22	9 35	8 54	8 17	7 43	7 12	6 43	6 17		20
	30	20 57	19 15	17 46	16 25	15 13	14 09	13 09	12 15	11 26	10 40	9 58	9 20		30
	40	26 44	24 42	22 53	21 14	19 45	18 24	17 09	16 01	14 58	14 00	13 06	12 16		40
	50	31 45	29 31	27 28	25 36	23 54	22 20	20 53	19 32	18 18	17 09	16 05	15 05		50
1	00	36 02	33 41	31 30	29 29	27 38	25 55	24 17	22 48	21 24	20 05	18 52	17 44	1	00
	10	39 39	37 16	35 01	32 55	30 57	29 07	27 23	25 47	24 16	22 50	21 29	20 13		10
	20	42 42	40 18	38 02	35 54	33 52	31 58	30 09	28 28	26 52	25 21	23 54	22 32		20
	30	45 13	42 52	40 37	38 28	36 26	34 39	32 52	30 52	29 12	27 37	26 06	24 40		30
	40	47 18	45 01	42 48	40 40	38 39	36 42	34 49	33 02	31 20	29 41	28 07	26 37		40
	50	49 02	46 48	44 39	42 33	40 33	38 37	36 44	34 56	33 12	31 32	29 55	28 23		50
2	00	50 27	48 18	46 12	44 10	42 11	40 17	38 24	36 37	34 52	33 11	31 33	29 59	2	00
	10	51 35	49 31	47 29	45 30	43 35	41 42	39 51	38 04	36 20	34 38	33 00	31 26		10
	20	52 30	50 31	48 33	46 38	44 45	42 55	41 05	39 20	37 37	35 56	34 18	32 42		20
	30	53 15	51 20	49 26	47 34	45 44	43 56	42 09	40 25	38 43	37 03	35 26	33 50		30
	40	53 48	51 58	50 08	48 20	46 33	44 47	43 03	41 21	39 41	38 02	36 24	34 50		40
	50	54 14	52 27	50 41	48 55	47 13	45 29	43 48	42 08	40 29	38 51	37 15	35 41		50
3	00	54 30	52 48	51 05	49 24	47 43	46 03	44 24	42 46	41 10	39 34	37 59	36 27	3	00
	10	54 42	53 03	51 24	49 45	48 09	46 30	44 54	43 18	41 44	40 09	38 36	37 04		10
	20	54 46	53 11	51 35	50 00	48 25	46 50	45 16	43 43	42 11	40 38	39 06	37 37		20
	30	54 46	53 13	51 41	50 08	48 36	47 05	45 33	44 02	42 31	41 01	39 31	38 03		30
	40	54 40	53 11	51 41	50 12	48 43	47 13	45 44	44 15	42 47	41 18	39 49	38 23		40
	50	54 30	53 04	51 37	50 10	48 44	47 17	45 50	44 23	42 57	41 30	40 04	38 38		50
4	00	54 16	52 53	51 29	50 04	48 41	47 16	45 51	44 26	43 02	41 37	40 13	38 49	4	00
	10	53 59	52 38	51 16	49 54	48 32	47 10	45 48	44 25	43 04	41 40	40 17	38 56		10
	20	53 38	52 20	51 00	49 41	48 21	47 01	45 40	44 20	43 00	41 39	40 18	38 58		20
	30	53 14	51 58	50 41	49 23	48 07	46 49	45 30	44 11	42 53	41 33	40 15	38 56		30
	40	52 47	51 33	50 19	49 03	47 47	46 32	45 16	43 59	42 43	41 25	40 07	38 50		40
	50	52 17	51 06	49 52	48 40	47 26	46 12	44 58	43 43	42 29	41 13	39 57	38 41		50
5	00	51 45	50 35	49 25	48 13	47 02	45 50	44 37	43 24	42 11	40 57	39 43	38 29	5	00
	10	51 16	50 02	48 54	47 44	46 34	45 24	44 13	43 02	41 51	40 38	39 26	38 14		10
	20	50 33	49 26	48 19	47 12	46 04	44 55	43 45	42 37	41 26	40 17	39 06	37 56		20
	30	49 54	48 50	47 43	46 37	45 31	44 25	43 17	42 09	41 01	39 53	38 44	37 35		30
	40	49 12	48 09	47 05	46 01	44 56	43 51	42 45	41 39	40 33	39 26	38 19	37 11		40
	50	48 29	47 27	46 24	45 21	44 19	43 15	42 11	41 07	40 02	38 56	37 51	36 45		50
6	00	47 42	46 44	45 42	44 40	43 39	42 37	41 34	40 31	39 29	38 25	37 20	36 16	6	00
	10	46 54	45 56	44 56	43 57	42 57	41 56	40 55	39 54	38 53	37 49	36 47	35 44		10
	20	46 04	45 07	44 09	43 11	42 12	41 14	40 14	39 14	38 14	37 13	36 12	35 10		20
	30	45 12	44 16	43 19	42 23	41 26	40 28	39 31	38 33	37 34	36 34	35 35	34 35		30
	40	44 17	43 23	42 26	41 33	40 38	39 42	38 45	37 48	36 52	35 53	34 55	33 57		40
	50	43 21	42 28	41 35	40 41	39 47	38 54	37 57	37 02	36 07	35 10	34 14	33 17		50
7	00	42 23	41 32	40 40	39 47	38 53	38 01	37 08	36 14	35 20	34 25	33 30	32 35	7	00
	10	41 23	40 33	39 42	38 51	37 59	37 08	36 15	35 24	34 31	33 37	32 44	31 50		10
	20	40 21	39 32	38 43	37 53	37 03	36 13	35 22	34 32	33 40	32 48	31 56	31 04		20
	30	39 17	38 30	37 41	36 53	36 05	35 16	34 27	33 38	32 48	31 57	31 07	30 16		30
	40	38 11	37 25	36 39	35 51	35 04	34 17	33 29	32 41	31 54	31 04	30 16	29 27		40
	50	37 04	36 19	35 33	34 48	34 02	33 16	32 30	31 43	30 57	30 09	29 23	28 35		50
8	00	35 54	35 11	34 26	33 42	32 57	32 14	31 28	30 44	29 59	29 12	28 27	27 41	8	00
	10	34 42	34 01	33 17	32 35	31 52	31 09	30 26	29 43	28 59	28 15	27 31	26 46		10
	20	33 28	32 48	32 07	31 25	30 45	30 03	29 21	28 40	27 58	27 15	26 33	25 50		20
	30	32 13	31 34	30 55	30 15	29 35	28 55	28 15	27 35	26 55	26 13	25 32	24 52		30
	40	30 57	30 19	29 40	29 02	28 23	27 46	27 08	26 28	25 49	25 10	24 30	23 52		40
	50	29 36	29 00	28 24	27 48	27 11	26 34	25 57	25 20	24 43	24 05	23 28	22 51		50
9	00	28 15	27 41	27 06	26 31	25 56	25 20	24 45	24 11	23 35	22 59	22 24	21 47	9	00
	10	26 53	26 20	25 47	25 13	24 40	24 06	23 32	23 00	22 26	21 51	21 17	20 43		10
	20	25 38	24 57	24 26	23 54	23 23	22 51	22 18	21 47	21 15	20 42	20 10	19 37		20
	30	24 03	23 33	23 03	22 32	22 03	21 33	21 02	20 32	20 02	19 31	19 01	18 30		30
	40	22 34	22 06	21 38	21 10	20 41	20 14	19 45	19 17	18 49	18 19	17 51	17 23		40
	50	21 05	20 39	20 13	19 45	19 19	18 52	18 26	18 00	17 34	17 06	16 39	16 13		50
10	00	19 34	19 10	18 45	18 21	17 55	17 31	17 07	16 42	16 18	15 52	15 28	15 03	10	00
	10	18 02	17 39	17 16	16 54	16 31	16 08	15 46	15 23	15 00	14 36	14 14	13 51		10
	20	16 28	16 07	15 46	15 26	15 05	14 44	14 24	14 03	13 42	13 21	13 00	12 39		20
	30	14 53	14 35	14 15	13 58	13 38	13 19	13 00	12 41	12 22	12 03	11 44	11 26		30
	40	13 16	13 01	12 43	12 26	12 10	11 52	11 36	11 19	11 03	10 46	10 29	10 11		40
	50	11 40	11 25	11 10	10 55	10 40	10 26	10 11	9 56	9 42	9 27	9 12	8 57		50
11	00	10 02	9 49	9 36	9 23	9 11	8 58	8 45	8 32	8 19	8 07	7 54	7 41	11	00
	10	8 23	8 12	8 01	7 50	7 40	7 29	7 19	7 08	6 57	6 47	6 36	6 25		10
	20	6 42	6 35	6 25	6 17	6 09	6 00	5 51	5 43	5 35	5 25	5 17	5 08		20
	30	5 03	4 56	4 50	4 43	4 37	4 30	4 24	4 18	4 12	4 05	3 59	3 52		30
	40	3 22	3 17	3 13	3 09	3 04	3 00	2 52	2 48	2 44	2 40	2 39	2 35		40
	50	1 41	1 39	1 37	1 35	1 33	1 31	1 29	1 26	1 23	1 21	1 19	1 17		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 30°.			DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 30°.		
Hour Angle.			48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.		
h.	m.		0	1	2	3	4	5	6	7	8	9	10	11	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	0 00
	10	7 59	7 14	6 36	6 03	5 33	5 08	4 44	4 24	4 04	3 48	3 32	3 18	3 00	1	10	1 10
	20	15 34	14 10	12 58	11 54	10 59	10 08	9 23	8 41	8 04	7 31	7 00	6 32	6 00		20	2 20
	30	22 27	20 34	18 51	17 25	16 05	14 53	13 49	12 50	11 57	11 08	10 23	9 42	9 00		30	3 30
	40	28 31	26 16	24 16	22 27	20 49	19 20	18 00	16 46	15 38	14 35	13 36	12 45	12 00		40	4 40
	50	33 42	31 14	29 01	26 59	25 07	23 25	21 51	20 25	19 06	17 52	16 43	15 39	15 00		50	5 50
1	00	38 02	35 29	33 08	30 58	28 57	27 05	25 22	23 47	22 16	20 53	19 36	18 23	1 00	1	00	1 00
	10	41 40	39 05	36 42	34 27	32 20	30 22	28 33	26 49	25 12	23 42	22 16	20 57	1 10		10	1 10
	20	44 39	42 07	39 43	37 27	35 18	33 16	31 21	29 34	27 52	26 15	24 44	23 18	1 20		20	1 20
	30	47 07	44 38	42 16	40 00	37 51	35 48	33 52	32 05	30 15	28 34	26 59	25 28	1 30		30	1 30
	40	49 08	46 44	44 24	42 11	40 04	38 00	36 03	34 10	32 22	30 40	29 01	27 27	1 40		40	1 40
	50	50 46	48 27	46 12	44 02	41 56	39 54	37 57	36 04	34 15	32 31	30 50	29 14	1 50		50	1 50
2	00	52 06	49 51	47 41	45 35	43 31	41 32	39 36	37 44	35 54	34 10	32 29	30 50	2	00	2 00	2 00
	10	53 09	51 00	48 56	46 53	44 53	42 55	41 01	39 10	37 22	35 37	33 55	32 17	2 10		10	2 10
	20	53 59	51 56	49 55	47 56	46 00	44 05	42 14	40 24	38 37	36 53	35 12	33 33	2 20		20	2 20
	30	54 38	52 40	50 43	48 49	46 55	45 04	43 15	41 27	39 42	37 59	36 18	34 40	2 30		30	2 30
	40	55 07	53 14	51 22	49 31	47 42	45 53	44 07	42 21	40 38	38 57	37 17	35 39	2 40		40	2 40
	50	55 27	53 38	51 51	50 04	48 18	46 32	44 48	43 06	41 25	39 45	38 07	36 30	2 50		50	2 50
3	00	55 41	53 55	52 12	50 28	48 46	47 03	45 23	43 43	42 03	40 26	38 49	37 14	3	00	3 00	3 00
	10	55 41	54 06	52 26	50 47	49 07	47 28	45 50	44 12	42 35	40 59	39 24	37 50	3 10		10	3 10
	20	55 46	54 10	52 34	50 55	49 21	47 45	46 09	44 35	42 59	41 26	39 52	38 21	3 20		20	3 20
	30	55 44	54 10	52 37	51 05	49 30	47 57	46 24	44 51	43 18	41 46	40 15	38 45	3 30		30	3 30
	40	55 35	54 04	52 34	51 04	49 33	48 03	46 32	45 02	43 32	42 02	40 33	39 04	3 40		40	3 40
	50	55 21	53 54	52 27	51 00	49 32	48 03	46 35	45 08	43 40	42 13	40 45	39 17	3 50		50	3 50
4	00	55 05	53 40	52 16	50 51	49 25	48 00	46 35	45 10	43 43	42 18	40 53	39 26	4	00	4 00	4 00
	10	54 44	53 23	52 01	50 38	49 15	47 53	46 29	45 06	43 43	42 19	40 55	39 32	4 10		10	4 10
	20	54 21	53 02	51 43	50 22	49 01	47 41	46 20	44 59	43 38	42 16	40 54	39 32	4 20		20	4 20
	30	53 55	52 37	51 20	50 03	48 44	47 25	46 07	44 48	43 26	42 00	40 40	39 22	4 30		30	4 30
	40	53 25	52 10	50 56	49 40	48 24	47 07	45 51	44 34	43 16	41 59	40 40	39 22	4 40		40	4 40
	50	52 53	51 40	50 28	49 14	48 00	46 46	45 31	44 16	43 00	41 45	40 28	39 11	4 50		50	4 50
5	00	52 19	51 08	49 57	48 45	47 33	46 21	45 08	43 55	42 41	41 27	40 12	38 58	5	00	5 00	5 00
	10	51 42	50 53	49 54	48 44	47 34	46 23	45 11	43 59	42 46	41 32	40 17	39 54	5 10		10	5 10
	20	51 02	50 50	49 50	48 40	47 30	46 20	45 09	43 57	42 45	41 30	40 15	38 21	5 20		20	5 20
	30	50 20	49 15	48 10	47 04	45 58	44 51	43 44	42 35	41 26	40 13	39 00	37 59	5 30		30	5 30
	40	49 38	48 33	47 30	46 26	45 21	44 15	43 10	42 04	40 57	39 49	38 41	37 34	5 40		40	5 40
	50	48 51	47 49	46 47	45 45	44 41	43 38	42 34	41 30	40 24	39 18	38 12	37 07	5 50		50	5 50
6	00	48 04	47 03	46 02	45 02	44 00	42 57	41 56	40 53	39 49	38 45	37 41	36 36	6	00	6 00	6 00
	10	47 14	46 15	45 16	44 19	43 17	42 16	41 15	40 14	39 12	38 10	37 07	36 04	6 10		10	6 10
	20	46 22	45 24	44 27	43 29	42 31	41 32	40 32	39 32	38 31	37 32	36 30	35 29	6 20		20	6 20
	30	45 28	44 33	43 36	42 40	41 43	40 45	39 47	38 50	37 51	36 52	35 52	34 52	6 30		30	6 30
	40	44 32	43 38	42 43	41 49	40 53	39 57	39 01	38 04	37 07	36 10	35 11	34 13	6 40		40	6 40
	50	43 36	42 42	41 49	40 55	40 01	39 06	38 12	37 17	36 21	35 25	34 29	33 31	6 50		50	6 50
7	00	42 35	41 44	40 53	40 00	39 07	38 14	37 21	36 27	35 33	34 39	33 44	32 48	7	00	7 00	7 00
	10	41 34	40 44	39 54	39 03	38 12	37 20	36 28	35 36	34 43	33 50	32 57	32 03	7 10		10	7 10
	20	40 31	39 42	38 53	38 04	37 14	36 24	35 34	34 43	33 51	33 00	32 08	31 16	7 20		20	7 20
	30	39 26	38 38	37 51	37 03	36 15	35 26	34 37	33 48	32 58	32 08	31 18	30 28	7 30		30	7 30
	40	38 19	37 33	36 46	36 01	35 13	34 26	33 39	32 51	32 03	31 15	30 26	29 37	7 40		40	7 40
	50	37 10	36 26	35 41	34 56	34 10	33 24	32 38	31 52	31 05	30 18	29 32	28 45	7 50		50	7 50
8	00	36 00	35 16	34 32	33 49	33 05	32 21	31 36	30 52	30 06	29 22	28 36	27 50	8	00	8 00	8 00
	10	34 47	34 05	33 24	32 41	31 58	31 16	30 33	29 49	29 06	28 22	27 38	26 54	8 10		10	8 10
	20	33 23	32 52	32 11	31 31	30 50	30 09	29 27	28 46	28 04	27 22	26 40	25 57	8 20		20	8 20
	30	32 16	31 37	30 58	30 19	29 40	29 00	28 20	27 41	27 00	26 20	25 39	24 58	8 30		30	8 30
	40	30 59	30 21	29 43	29 05	28 26	27 50	27 12	26 33	25 54	25 16	24 37	23 58	8 40		40	8 40
	50	29 39	29 03	28 26	27 50	27 14	26 37	26 01	25 24	24 47	24 10	23 33	22 55	8 50		50	8 50
9	00	28 17	27 43	27 08	26 33	25 59	25 24	24 49	24 14	23 38	23 04	22 27	21 52	9	00	9 00	9 00
	10	26 54	26 21	25 49	25 15	24 42	24 09	23 35	23 02	22 29	21 55	21 21	20 47	9 10		10	9 10
	20	25 29	24 58	24 27	23 53	23 24	22 52	22 21	21 49	21 17	20 46	20 13	19 41	9 20		20	9 20
	30	24 02	23 33	23 04	22 33	22 04	21 35	21 04	20 35	20 05	19 35	19 04	18 34	9 30		30	9 30
	40	22 34	22 07	21 39	21 11	20 43	20 15	19 47	19 18	18 51	18 22	17 54	17 25	9 40		40	9 40
	50	21 04	20 38	20 12	19 47	19 20	18 54	18 28	18 01	17 35	17 09	16 42	16 16	9 50		50	9 50
10	00	19 33	19 10	18 45	18 20	17 56	17 32	17 07	16 43	16 19	15 55	15 30	15 05	10	00	10 00	10 00
	10	18 01	17 38	17 16	16 54	16 31	16 09	15 46	15 24	15 01	14 39	14 16	13 53	10 10		10	10 10
	20	16 27	16 07	15 46	15 26	15 05	14 44	14 24	14 04	13 43	13 22	13 01	12 40	10 20		20	10 20
	30	14 52	14 33	14 15	13 56	13 38	13 19	13 01	12 42	12 23	12 04	11 46	11 27	10 30		30	10 30
	40	13 16	12 59	12 43	12 26	12 10	11 52	11 36	11 19	11 03	10 46	10 30	10 1				

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or

AZIMUTH OR TRUE BEARING.

LATITUDE 36°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 36°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	3 04	2 51	2 40	2 29	2 20	2 10	2 02	1 54	1 46	1 39	1 31	10
	20	6 06	5 42	5 19	4 58	4 39	4 20	4 03	3 46	3 31	3 17	3 03	20
	30	9 04	8 28	7 55	7 24	6 55	6 28	6 02	5 38	5 15	4 54	4 33	30
	40	11 56	11 10	10 26	9 46	9 08	8 33	7 59	7 27	6 57	6 29	6 02	40
	50	14 40	13 44	12 52	12 03	11 17	10 34	9 53	9 14	8 37	8 02	7 28	50
1	00	17 15	16 11	15 11	14 14	13 21	12 30	11 42	10 57	10 13	9 32	8 54	1
	10	19 41	18 30	17 22	16 19	15 19	14 21	13 27	12 35	11 46	11 00	10 16	10
	20	21 56	20 40	19 26	18 17	17 10	16 06	15 08	14 11	13 17	12 24	11 34	20
	30	24 02	22 40	21 21	20 06	18 56	17 48	16 43	15 41	14 41	13 45	12 50	30
	40	25 55	24 31	23 08	21 50	20 34	19 22	18 13	17 07	16 03	15 01	14 03	40
	50	27 41	26 12	24 46	23 24	22 06	20 50	19 37	18 27	17 18	16 13	15 11	50
2	00	29 15	27 45	26 16	24 52	23 30	22 12	20 55	19 41	18 31	17 22	16 16	2
	10	30 41	29 09	27 39	26 12	24 47	23 26	22 08	20 51	19 38	18 26	17 17	10
	20	31 57	30 22	28 53	27 24	25 58	24 35	23 14	21 56	20 39	19 26	18 14	20
	30	33 04	31 30	29 59	28 30	27 03	25 38	24 15	22 55	21 37	20 20	19 07	30
	40	34 03	32 30	30 57	29 28	28 01	26 35	25 12	23 50	22 30	21 12	19 57	40
	50	34 54	33 21	31 50	30 20	28 52	27 26	26 02	24 38	23 18	21 58	20 42	50
3	00	35 39	34 07	32 36	31 06	29 37	28 11	26 46	25 23	24 01	22 41	21 22	3
	10	36 17	34 46	33 15	31 46	30 18	28 51	27 26	26 02	24 40	23 18	21 59	10
	20	36 48	35 19	33 48	32 20	30 53	29 27	28 02	26 37	25 15	23 53	22 33	20
	30	37 15	35 46	34 17	32 50	31 22	29 56	28 32	27 08	25 45	24 23	23 03	30
	40	37 35	36 08	34 40	33 13	31 47	30 22	28 58	27 34	26 11	24 50	23 29	40
	50	37 50	36 24	34 58	33 33	32 08	30 44	29 20	27 56	26 34	25 12	23 52	50
4	00	38 01	36 37	35 11	33 47	32 24	31 01	29 37	28 15	26 52	25 32	24 12	4
	10	38 08	36 45	35 21	33 59	32 36	31 13	29 51	28 29	27 08	25 47	24 28	10
	20	38 10	36 49	35 27	34 05	32 44	31 22	30 01	28 40	27 19	25 59	24 38	20
	30	38 09	36 49	35 26	34 08	32 48	31 26	30 07	28 48	27 28	26 09	24 49	30
	40	38 03	36 45	35 26	34 07	32 48	31 26	30 10	28 52	27 33	26 14	24 56	40
	50	37 55	36 38	35 20	34 03	32 46	31 28	30 11	28 53	27 35	26 17	24 59	50
5	00	37 42	36 26	35 11	33 56	32 39	31 24	30 07	28 50	27 34	26 17	25 01	5
	10	37 27	36 14	35 00	33 45	32 31	31 15	30 01	28 45	27 30	26 14	24 59	10
	20	37 10	35 58	34 45	33 32	32 20	31 06	29 52	28 38	27 24	26 09	24 55	20
	30	36 48	35 38	34 26	33 16	32 04	30 53	29 41	28 27	27 14	26 01	24 48	30
	40	36 25	35 16	34 07	32 57	31 47	30 36	29 26	28 15	27 03	25 50	24 38	40
	50	35 59	34 52	33 44	32 36	31 27	30 18	29 09	27 59	26 49	25 38	24 28	50
6	00	35 30	34 25	33 18	32 12	31 05	29 58	28 50	27 41	26 32	25 25	24 14	6
	10	34 59	33 55	32 51	31 46	30 40	29 34	28 28	27 21	26 13	25 05	23 58	10
	20	34 26	33 24	32 21	31 18	30 13	29 09	28 04	26 58	25 52	24 46	23 40	20
	30	33 51	32 50	31 49	30 47	29 44	28 41	27 38	26 34	25 29	24 25	23 20	30
	40	33 13	32 14	31 14	30 14	29 12	28 11	27 09	26 07	25 04	24 01	22 57	40
	50	32 34	31 37	30 38	29 39	28 40	27 40	26 40	25 39	24 38	23 36	22 34	50
7	00	31 52	30 56	29 59	29 03	28 05	27 07	26 08	25 09	24 08	23 08	22 08	7
	10	31 09	30 14	29 18	28 23	27 27	26 30	25 33	24 36	23 38	22 39	21 41	10
	20	30 24	29 30	28 37	27 42	26 46	25 53	24 58	24 02	23 06	22 09	21 12	20
	30	29 36	28 44	27 53	27 01	26 07	25 14	24 20	23 27	22 32	21 36	20 41	30
	40	28 47	27 57	27 07	26 16	25 25	24 33	23 41	22 49	21 56	21 02	20 09	40
	50	27 56	27 08	26 20	25 31	24 41	23 51	23 00	22 10	21 19	20 26	19 35	50
8	00	27 04	26 17	25 30	24 43	23 55	23 07	22 19	21 30	20 40	19 50	18 59	8
	10	26 09	25 24	24 40	23 54	23 08	22 21	21 34	20 46	20 00	19 12	18 23	10
	20	25 14	24 31	23 47	23 03	22 19	21 34	20 49	20 04	19 18	18 31	17 45	20
	30	24 16	23 35	22 53	22 11	21 28	20 46	20 02	19 19	18 35	17 51	17 06	30
	40	23 17	22 38	21 58	21 18	20 37	19 56	19 15	18 33	17 50	17 08	16 25	40
	50	22 16	21 39	21 01	20 23	19 44	19 04	18 25	17 45	17 05	16 24	15 43	50
9	00	21 16	20 40	20 03	19 27	18 49	18 11	17 34	16 56	16 18	15 39	15 00	9
	10	20 13	19 39	19 03	18 28	17 53	17 18	16 43	16 06	15 30	14 53	14 16	10
	20	19 09	18 36	18 03	17 31	16 57	16 24	15 49	15 16	14 42	14 07	13 31	20
	30	18 03	17 32	17 02	16 31	15 59	15 27	14 55	14 23	13 51	13 18	12 45	30
	40	16 56	16 27	15 59	15 29	15 00	14 31	14 01	13 30	13 00	12 29	11 59	40
	50	15 48	15 22	14 55	14 26	14 00	13 32	13 05	12 37	12 08	11 39	11 11	50
10	00	14 40	14 15	13 50	13 25	12 59	12 34	12 06	11 42	11 15	10 49	10 23	10
	10	13 30	13 07	12 44	12 20	11 57	11 34	11 10	10 46	10 22	9 57	9 33	10
	20	12 20	11 59	11 37	11 17	10 55	10 34	10 11	9 50	9 28	9 06	8 43	20
	30	11 08	10 49	10 30	10 11	9 51	9 32	9 12	8 53	8 33	8 13	7 53	30
	40	9 56	9 39	9 21	9 04	8 47	8 30	8 13	7 55	7 37	7 20	7 01	40
	50	8 43	8 26	8 13	7 58	7 43	7 28	7 13	6 57	6 41	6 26	6 10	50
11	00	7 29	7 16	7 04	6 50	6 38	6 25	6 11	5 58	5 45	5 31	5 18	11
	10	6 15	6 04	5 54	5 43	5 32	5 21	5 10	4 59	4 49	4 36	4 25	10
	20	5 01	4 52	4 54	4 45	4 36	4 26	4 18	4 08	4 00	3 51	3 42	20
	30	3 46	3 39	3 33	3 26	3 20	3 13	3 06	3 00	2 53	2 47	2 40	30
	40	2 30	2 26	2 23	2 18	2 14	2 09	2 04	2 01	1 56	1 51	1 47	40
	50	1 16	1 13	1 11	1 07	1 04	1 01	1 02	1 01	0 58	0 56	0 54	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 37°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 37°.		
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		00	00	00	00	00	00	00	00	00	00	00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	3 12	2 58	2 47	2 35	2 24	2 13	2 05	1 57	1 49	1 42	1 34	0	10
0	20	6 20	5 55	5 31	5 09	4 48	4 29	4 11	3 54	3 38	3 23	3 08	0	20
0	30	9 25	8 47	8 12	7 39	7 08	6 41	6 13	5 48	5 24	5 02	4 40	0	30
0	40	12 23	11 34	10 49	10 06	9 27	8 48	8 13	7 40	7 09	6 40	6 11	0	40
0	50	15 13	14 14	13 20	12 28	11 39	10 53	10 10	9 30	8 51	8 15	7 40	0	50
1	00	17 53	16 45	15 42	14 42	13 46	12 53	12 03	11 15	10 30	9 47	9 07	1	00
1	10	20 23	19 14	17 57	16 51	15 47	14 47	13 50	12 57	12 06	11 18	10 31	1	10
1	20	22 41	21 20	20 04	18 50	17 42	16 36	15 33	14 34	13 37	12 44	11 51	1	20
1	30	24 49	23 23	22 02	20 44	19 29	18 19	17 12	16 06	15 05	14 06	13 09	1	30
1	40	26 46	25 16	23 50	22 28	21 09	19 54	18 42	17 33	16 27	15 24	14 23	1	40
1	50	28 31	26 59	25 30	24 05	22 42	21 24	20 08	18 55	17 45	16 38	15 32	1	50
2	00	30 06	28 32	27 01	25 33	24 08	22 46	21 27	20 11	18 57	17 47	16 38	2	00
2	10	31 31	29 55	28 23	26 52	25 26	24 02	22 41	21 21	20 05	18 52	17 40	2	10
2	20	32 47	31 11	29 37	28 06	26 37	25 11	23 47	22 27	21 08	19 52	18 38	2	20
2	30	33 54	32 17	30 43	29 11	27 41	26 14	24 49	23 26	22 06	20 48	19 32	2	30
2	40	34 52	33 16	31 41	30 10	28 39	27 11	25 44	24 21	22 59	21 40	20 21	2	40
2	50	35 43	34 07	32 33	31 01	29 30	28 02	26 35	25 10	23 47	22 26	21 06	2	50
3	00	36 26	34 52	33 18	31 46	30 15	28 47	27 19	25 54	24 30	23 09	21 48	3	00
3	10	37 03	35 29	33 57	32 25	30 55	29 27	27 59	26 33	25 09	23 47	22 25	3	10
3	20	37 33	35 01	34 29	32 59	31 29	30 01	28 34	27 08	25 44	24 20	22 59	3	20
3	30	37 58	35 26	34 56	33 27	31 59	30 31	29 04	27 38	26 13	24 50	23 28	3	30
3	40	38 16	35 47	35 18	33 49	32 22	30 55	29 29	28 04	26 40	25 17	23 54	3	40
3	50	38 31	37 02	35 35	34 08	32 41	31 16	29 50	28 25	27 01	25 39	24 16	3	50
4	00	38 39	37 13	35 47	34 22	32 56	31 31	30 07	28 43	27 20	25 58	24 35	4	00
4	10	38 45	37 19	35 56	34 31	33 07	31 44	30 20	28 57	27 34	26 13	24 51	4	10
4	20	38 45	37 22	36 00	34 37	33 14	31 52	30 29	29 07	27 45	26 24	25 02	4	20
4	30	38 42	37 21	36 00	34 38	33 17	31 56	30 34	29 13	27 53	26 33	25 11	4	30
4	40	38 36	37 16	35 57	34 37	33 16	31 57	30 36	29 17	27 57	26 38	25 18	4	40
4	50	38 25	37 07	35 49	34 31	33 12	31 55	30 36	29 17	27 58	26 40	25 21	4	50
5	00	38 11	36 55	35 39	34 23	33 06	31 48	30 31	29 14	27 56	26 39	25 21	5	00
5	10	37 55	36 41	35 27	34 12	32 56	31 40	30 24	29 08	27 51	26 36	25 19	5	10
5	20	37 36	36 23	35 10	33 57	32 42	31 29	30 14	28 59	27 45	26 30	25 14	5	20
5	30	37 14	36 03	34 52	33 40	32 27	31 15	30 02	28 48	27 34	26 21	25 06	5	30
5	40	36 48	35 39	34 30	33 19	32 08	30 58	29 46	28 34	27 22	26 10	24 57	5	40
5	50	36 22	35 14	34 06	32 57	31 48	30 38	29 28	28 18	27 07	25 56	24 44	5	50
6	00	35 51	34 46	33 39	32 32	31 25	30 16	29 08	27 59	26 50	25 41	24 30	6	00
6	10	35 19	34 15	33 10	32 05	30 59	29 53	28 46	27 39	26 30	25 22	24 13	6	10
6	20	34 45	33 42	32 40	31 35	30 31	29 27	28 21	27 15	26 09	25 02	23 55	6	20
6	30	34 09	33 08	32 06	31 03	30 00	28 58	27 54	26 50	25 45	24 40	23 34	6	30
6	40	33 30	32 30	31 31	30 30	29 29	28 27	27 25	26 22	25 19	24 16	23 11	6	40
6	50	32 49	31 52	30 53	29 54	28 54	27 55	26 54	25 53	24 51	23 50	22 47	6	50
7	00	32 07	31 11	30 14	29 16	28 18	27 20	26 22	25 22	24 22	23 22	22 21	7	00
7	10	31 22	30 27	29 32	28 37	27 40	26 44	25 46	24 48	23 50	22 52	21 53	7	10
7	20	30 35	29 42	28 49	27 55	27 00	26 06	25 10	24 14	23 18	22 20	21 23	7	20
7	30	29 48	28 57	28 05	27 11	26 19	25 26	24 32	23 38	22 43	21 47	20 51	7	30
7	40	28 58	28 08	27 18	26 27	25 35	24 44	23 52	22 59	22 06	21 13	20 19	7	40
7	50	28 06	27 18	26 30	25 41	24 51	24 01	23 11	22 20	21 29	20 37	19 45	7	50
8	00	27 13	26 26	25 40	24 52	24 04	23 16	22 28	21 38	20 49	20 00	19 10	8	00
8	10	26 18	25 33	24 48	24 02	23 16	22 30	21 43	20 57	20 08	19 20	18 31	8	10
8	20	25 21	24 38	23 55	23 11	22 27	21 42	20 57	20 12	19 26	18 40	17 53	8	20
8	30	24 24	23 42	23 01	22 18	21 35	20 53	20 10	19 26	18 42	17 58	17 13	8	30
8	40	23 24	22 45	22 05	21 24	20 43	20 03	19 22	18 39	17 58	17 15	16 32	8	40
8	50	22 23	21 46	21 07	20 29	19 50	19 11	18 32	17 51	17 11	16 31	15 49	8	50
9	00	21 21	20 45	20 08	19 32	18 55	18 18	17 40	17 02	16 24	15 45	15 06	9	00
9	10	20 18	19 43	19 09	18 34	17 59	17 24	16 48	16 12	15 36	14 59	14 22	9	10
9	20	19 13	18 40	18 08	17 34	17 01	16 28	15 55	15 21	14 46	14 12	13 36	9	20
9	30	18 07	17 37	17 06	16 35	16 04	15 32	15 00	14 29	13 55	13 23	12 50	9	30
9	40	17 00	16 31	16 02	15 33	15 04	14 34	14 04	13 35	13 04	12 34	12 02	9	40
9	50	15 51	15 25	14 58	14 31	14 04	13 36	13 09	12 41	12 12	11 44	11 15	9	50
10	00	14 42	14 18	13 53	13 28	13 02	12 37	12 12	11 45	11 19	10 53	10 26	10	00
10	10	13 32	13 10	12 47	12 23	12 00	11 37	11 13	10 50	10 25	10 01	9 36	10	10
10	20	12 22	12 01	11 40	11 19	10 58	10 36	10 14	9 52	9 30	9 09	8 46	10	20
10	30	11 09	10 51	10 32	10 13	9 55	9 35	9 15	8 55	8 36	8 16	7 55	10	30
10	40	9 57	9 40	9 23	9 06	8 50	8 32	8 15	7 58	7 39	7 22	7 04	10	40
10	50	8 44	8 29	8 15	8 00	7 45	7 30	7 14	6 59	6 43	6 28	6 12	10	50
11	00	7 30	7 18	7 05	6 52	6 39	6 26	6 13	6 00	5 47	5 33	5 19	11	00
11	10	6 16	6 06	5 55	5 44	5 33	5 22	5 10	5 01	4 50	4 39	4 26	11	10
11	20	5 02	4 53	4 45	4 36	4 27	4 18	4 10	4 01	3 52	3 43	3 33	11	20
11	30	3 46	3 40	3 34	3 27	3 20	3 14	3 07	3 01	2 54	2 46	2 40	11	30
11	40	2 31	2 26	2 23	2 18	2 14	2 09	2 05	2 01	1 56	1 51	1 47	11	40
11	50	1 15	1 13	1 11	1 09	1 07	1 05	1 03	1 01	0 58	0 56	0 53	11	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East, and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 38°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	°	°	°	°	°	°	°	°	°	°	°	°	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	170 37	170 01	169 18	168 28	167 27	166 14	164 46	162 52	160 25	157 06	152 26	145 25	1	10
	20	161 38	160 29	159 10	157 38	155 51	153 43	151 10	148 04	144 13	139 22	133 11	125 14		20
	30	153 18	151 46	150 00	148 00	145 43	143 03	139 59	136 22	132 07	127 05	121 09	114 11		30
	40	145 47	143 59	141 58	139 43	137 10	134 18	131 04	127 24	123 15	118 34	113 17	107 26		40
	50	139 08	137 11	135 03	132 41	130 04	127 12	124 01	120 31	116 39	112 25	107 49	102 49		50
1	00	133 18	131 17	129 06	126 44	124 10	121 23	118 22	115 06	111 34	107 46	103 43	99 25	1	00
	10	128 10	126 09	124 00	121 42	119 13	116 34	113 45	110 43	107 29	104 05	100 29	96 43		10
	20	123 39	121 41	119 35	117 22	115 01	112 30	109 52	107 04	104 08	101 03	97 50	94 29		20
	30	119 39	117 45	115 44	113 36	111 23	109 02	106 34	103 59	101 17	98 28	95 34	92 33		30
	40	116 06	114 16	112 20	110 19	108 12	106 00	103 42	101 18	98 49	96 14	93 35	90 50		40
	50	112 55	111 09	109 18	107 24	105 24	103 19	101 10	98 57	96 38	94 15	91 49	89 18		50
2	00	110 02	108 20	106 34	104 45	102 52	100 55	98 53	96 48	94 39	92 27	90 12	87 52	2	00
	10	107 24	105 46	104 05	102 22	100 34	98 43	96 49	94 53	92 52	90 48	88 41	86 32		10
	20	104 59	103 25	101 40	100 10	98 28	96 43	94 56	93 04	91 11	89 16	87 17	85 17		20
	30	102 44	101 15	99 42	98 08	96 30	94 50	93 09	91 25	89 38	87 48	85 57	84 04		30
	40	100 38	99 12	97 43	96 14	94 41	93 05	91 29	89 50	88 08	86 25	84 40	82 54		40
	50	98 41	97 18	95 53	94 27	92 58	91 27	89 55	88 20	86 45	85 07	83 27	81 45		50
3	00	96 49	95 29	94 07	92 45	91 19	89 53	88 25	86 54	85 23	83 50	82 16	80 39	3	00
	10	95 02	93 45	92 27	91 07	89 45	88 22	86 57	85 32	84 05	82 36	81 05	79 34		10
	20	93 21	92 07	90 51	89 34	88 16	86 55	85 35	84 13	82 48	81 23	79 57	78 30		20
	30	91 44	90 32	89 19	88 05	86 49	85 32	84 14	82 55	81 34	80 12	78 57	77 26		30
	40	90 09	88 59	87 49	86 37	85 24	84 10	82 55	81 37	80 21	79 03	77 43	76 22		40
	50	88 39	87 30	86 22	85 13	84 02	82 50	81 37	80 23	79 08	77 54	76 37	75 19		50
4	00	87 10	86 04	84 57	83 50	82 41	81 32	80 22	79 11	77 58	76 45	75 31	74 17	4	00
	10	85 42	84 38	83 34	82 28	81 22	80 15	79 07	77 58	76 48	75 37	74 25	73 13		10
	20	84 18	83 15	82 12	81 08	80 04	78 58	77 52	76 45	75 38	74 29	73 20	72 10		20
	30	82 54	81 52	80 51	79 49	78 46	77 43	76 39	75 34	74 28	73 21	72 15	71 06		30
	40	81 31	80 31	79 31	78 31	77 30	76 28	75 25	74 22	73 19	72 14	71 09	70 03		40
	50	80 09	79 11	78 13	77 14	76 13	75 13	74 12	73 11	72 09	71 06	70 02	68 59		50
5	00	78 47	77 50	76 53	75 56	74 57	73 58	72 58	71 59	70 59	69 58	68 56	67 54	5	00
	10	77 27	76 31	75 35	74 39	73 41	72 44	71 45	70 47	69 48	68 48	67 49	66 47		10
	20	76 06	75 10	74 16	73 21	72 25	71 29	70 32	69 35	68 37	67 39	66 41	65 41		20
	30	74 44	73 51	72 57	72 03	71 08	70 13	69 18	68 23	67 26	66 29	65 32	64 35		30
	40	73 23	72 31	71 38	70 45	69 51	68 58	68 03	67 09	66 13	65 18	64 22	63 26		40
	50	72 02	71 11	70 19	69 27	68 34	67 42	66 48	65 55	65 01	64 06	63 12	62 17		50
6	00	70 40	69 50	68 59	68 07	67 16	66 24	65 32	64 40	63 47	62 54	62 00	61 07	6	00
	10	69 18	68 28	67 38	66 48	65 57	65 06	64 14	63 23	62 32	61 40	60 46	59 55		10
	20	67 54	67 05	66 18	65 27	64 37	63 48	62 58	62 07	61 16	60 25	59 34	58 43		20
	30	66 30	65 41	64 54	64 05	63 16	62 27	61 38	60 49	59 59	59 09	58 19	57 29		30
	40	65 04	64 16	63 29	62 42	61 54	61 06	60 17	59 29	58 40	57 51	57 02	56 14		40
	50	63 38	62 51	62 04	61 18	60 30	59 43	58 56	58 08	57 21	56 33	55 45	54 57		50
7	00	62 10	61 24	60 38	59 52	59 06	58 20	57 33	56 46	55 59	55 12	54 26	53 39	7	00
	10	60 40	59 55	59 09	58 24	57 39	56 54	56 08	55 23	54 36	53 51	53 05	52 18		10
	20	59 09	58 24	57 40	56 55	56 11	55 26	54 41	53 57	53 12	52 27	51 42	50 57		20
	30	57 36	56 52	56 08	55 25	54 40	53 57	53 13	52 30	51 46	51 02	50 18	49 34		30
	40	56 02	55 18	54 35	53 52	53 09	52 27	51 43	51 01	50 18	49 34	48 51	48 08		40
	50	54 24	53 41	53 00	52 18	51 36	50 54	50 11	49 29	48 48	48 06	47 24	46 42		50
8	00	52 45	52 03	51 22	50 40	49 59	49 19	48 37	47 57	47 16	46 34	45 54	45 13	8	00
	10	51 04	50 23	49 42	49 02	48 22	47 42	47 02	46 22	45 41	45 02	44 22	43 42		10
	20	49 20	48 40	47 59	47 21	46 42	46 02	45 23	44 45	44 05	43 27	42 48	42 09		20
	30	47 34	46 55	46 16	45 37	44 59	44 21	43 43	43 06	42 27	41 50	41 12	40 34		30
	40	45 45	45 07	44 29	43 52	43 14	42 38	42 00	41 24	40 47	40 10	39 34	38 57		40
	50	43 53	43 16	42 39	42 03	41 27	40 51	40 15	39 40	39 03	38 29	37 53	37 18		50
9	00	41 58	41 22	40 47	40 12	39 37	39 02	38 27	37 53	37 19	36 44	36 10	35 37	9	00
	10	40 01	39 26	38 52	38 18	37 44	37 11	36 37	36 04	35 31	34 59	34 26	33 54		10
	20	38 01	37 27	36 54	36 22	35 50	35 18	34 45	34 14	33 42	33 10	32 39	32 08		20
	30	35 58	35 26	34 54	34 23	33 51	33 21	32 50	32 19	31 50	31 20	30 50	30 20		30
	40	33 51	33 21	32 50	32 21	31 52	31 22	30 52	30 24	29 55	29 26	28 59	28 30		40
	50	31 42	31 13	30 44	30 16	29 48	29 20	28 52	28 25	27 58	27 32	27 05	26 39		50
10	00	29 30	29 02	28 35	28 09	27 43	27 17	26 51	26 25	26 00	25 34	25 10	24 45	10	00
	10	27 15	26 49	26 24	25 59	25 34	25 10	24 46	24 22	23 58	23 35	23 11	22 48		10
	20	24 56	24 33	24 10	23 47	23 23	23 02	22 39	22 17	21 55	21 33	21 12	20 51		20
	30	22 36	22 14	21 52	21 32	21 11	20 50	20 29	20 10	19 50	19 31	19 10	18 51		30
	40	20 12	19 52	19 34	19 15	18 56	18 37	18 18	18 01	17 43	17 24	17 07	16 50		40
	50	17 46	17 29	17 12	16 55	16 38	16 22	16 06	15 50	15 34	15 18	15 03	14 47		50
11	00	15 18	15 03	14 49	14 34	14 20	14 05	13 51	13 38	13 24	13 10	12 57	12 44	11	00
	10	12 49	12 36	12 23	12 11	11 59	11 46	11 35	11 23	11 12	11 00	10 49	10 38		10
	20	10 17	10 07	9 57	9 47	9 37	9 27	9 17	9 08	8 59	8 50	8 41	8 32		20
	30	7 44	7 36	7 29	7 21	7 13	7 06	6 59	6 52	6 45	6 38	6 31	6 24		30
	40	5 10	5 05	5 00	4 54	4 50	4 45	4 40	4 35	4 31	4 26	4 21	4 17		40
	50	2 35	2 33	2 30	2 28	2 26	2 22	2 20	2 18	2 15	2 13	2 10	2 08		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 38°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	180 00	180 00	89 14	62 09	43 24	31 57	24 48	20 01	16 39	14 09	12 15	10 44	0	00
	10	134 18	115 59	88 28	74 07	61 13	50 34	42 10	35 38	30 33	26 31	23 16	20 37		10
	20	115 06	102 37	87 15	87 41	78 01	68 43	52 47	46 22	40 55	36 19	32 24	29 05		20
	30	106 11	97 15	86 55	86 55	79 37	72 27	65 38	59 17	53 30	48 19	43 43	39 37		30
	40	101 01	94 07	86 09	86 09	80 17	74 28	68 48	63 23	58 17	53 33	49 11	45 12		40
	50	97 31	91 55										41 34		50
1	00	94 54	90 12	85 22	80 39	75 35	70 46	66 04	61 34	57 16	53 14	49 26	45 57	1	00
	10	92 47	88 44	84 35	80 23	76 10	71 58	67 52	63 51	59 59	56 16	52 43	49 24		10
	20	91 00	87 26	83 48	80 07	76 24	72 43	69 03	65 27	61 56	58 30	55 13	52 04		20
	30	89 26	86 15	83 01	79 44	76 26	73 06	69 48	66 33	63 20	60 12	57 08	54 10		30
	40	88 02	85 09	82 14	79 16	76 16	73 16	70 16	67 18	64 21	61 27	58 35	55 49		40
	50	86 43	84 06	81 26	78 43	76 00	73 15	70 30	67 46	65 03	62 21	59 42	57 05		50
2	00	85 30	83 05	80 38	78 09	75 39	73 06	70 34	68 02	65 31	63 06	60 31	58 03	2	00
	10	84 20	82 05	79 50	77 32	75 12	72 52	70 30	68 08	65 47	63 26	61 05	58 47		10
	20	83 13	81 08	79 01	76 52	74 42	72 31	70 19	68 06	65 54	63 41	61 28	59 17		20
	30	82 08	80 11	78 12	76 11	74 09	72 07	70 02	67 57	65 53	63 48	61 43	59 39		30
	40	81 04	79 14	77 22	75 29	73 34	71 39	69 41	67 44	65 46	63 48	61 49	59 51		40
	50	80 02	78 18	76 32	74 45	72 57	71 07	69 16	67 25	65 33	63 41	61 49	59 58		50
3	00	79 01	77 22	75 42	74 00	72 17	70 33	68 48	67 03	65 17	63 29	61 42	59 54	3	00
	10	78 01	76 26	74 51	73 14	71 36	69 58	68 17	66 36	64 55	63 13	61 31	59 48		10
	20	77 00	75 30	73 59	72 27	70 53	69 18	67 43	66 07	64 31	62 53	61 15	59 37		20
	30	76 00	74 34	73 07	71 38	70 09	68 39	67 07	65 36	64 03	62 29	60 56	59 21		30
	40	75 00	73 38	72 14	70 49	69 23	67 56	66 29	65 01	63 32	62 02	60 32	59 01		40
	50	74 00	72 41	71 20	69 59	68 36	67 13	65 49	64 24	63 00	61 33	60 06	58 37		50
4	00	73 00	71 43	70 26	69 08	67 48	66 28	65 07	63 45	62 23	61 00	59 34	58 11	4	00
	10	72 00	70 45	69 35	68 15	66 58	65 41	64 22	63 04	61 45	60 24	59 03	57 42		10
	20	70 59	69 47	68 35	67 22	66 08	64 53	63 38	62 21	61 04	59 47	58 29	57 10		20
	30	69 57	68 49	67 39	66 28	65 15	64 04	62 50	61 37	60 23	59 08	57 51	56 35		30
	40	68 56	67 49	66 41	65 32	64 23	63 13	62 02	60 51	59 39	58 26	57 12	55 58		40
	50	67 53	66 49	65 43	64 36	63 29	62 21	61 12	60 03	58 53	57 42	56 31	55 19		50
5	00	66 50	65 47	64 43	63 38	62 32	61 27	60 20	59 13	58 05	56 57	55 48	54 38	5	00
	10	65 47	64 45	63 42	62 39	61 36	60 32	59 27	58 22	57 16	56 09	55 02	53 55		10
	20	64 42	63 42	62 42	61 39	60 37	59 35	58 32	57 29	56 25	55 20	54 15	53 09		20
	30	63 36	62 37	61 38	60 36	59 36	58 37	57 36	56 34	55 32	54 30	53 28	52 22		30
	40	62 29	61 32	60 34	59 36	58 37	57 38	56 38	55 38	54 37	53 36	52 34	51 33		40
	50	61 21	60 25	59 29	58 33	57 35	56 38	55 40	54 41	53 41	52 42	51 42	50 41		50
6	00	60 12	59 18	58 23	57 28	56 32	55 35	54 39	53 42	52 44	51 45	50 47	49 49	6	00
	10	59 02	58 09	57 15	56 21	55 27	54 31	53 36	52 40	51 44	50 47	49 51	48 53		10
	20	57 51	56 59	56 07	55 14	54 21	53 27	52 33	51 38	50 44	49 49	48 53	47 57		20
	30	56 38	55 47	54 56	54 04	53 12	52 20	51 27	50 34	49 41	48 47	47 53	46 58		30
	40	55 24	54 34	53 44	52 54	52 02	51 12	50 21	49 29	48 37	47 45	46 52	45 59		40
	50	54 08	53 19	52 31	51 41	50 52	50 02	49 11	48 22	47 31	46 39	45 48	44 57		50
7	00	52 51	52 04	51 16	50 28	49 39	48 51	48 02	47 13	46 23	45 33	44 43	43 53	7	00
	10	51 32	50 46	49 59	49 12	48 25	47 38	46 50	46 02	45 13	44 23	43 37	42 47		10
	20	50 12	49 26	48 41	47 55	47 09	46 22	45 36	44 50	44 03	43 15	42 28	41 40		20
	30	48 49	48 05	47 21	46 36	45 51	45 06	44 20	43 35	42 50	42 04	41 19	40 32		30
	40	47 25	46 42	45 59	45 16	44 32	43 48	43 03	42 20	41 35	40 51	40 06	39 21		40
	50	46 00	45 18	44 35	43 52	43 10	42 28	41 45	41 02	40 19	39 36	38 52	38 09		50
8	00	44 31	43 51	43 10	42 29	41 46	41 06	40 24	39 43	39 01	38 19	37 37	36 55	8	00
	10	43 02	42 23	41 43	41 03	40 23	39 42	39 02	38 22	37 41	37 00	36 20	35 40		10
	20	41 30	40 51	40 13	39 34	38 55	38 16	37 37	36 59	36 20	35 40	35 01	34 22		20
	30	39 57	39 19	38 42	38 05	37 27	36 49	36 12	35 34	34 56	34 18	33 41	33 03		30
	40	38 21	37 44	37 09	36 33	35 56	35 20	34 43	34 07	33 31	32 54	32 18	31 42		40
	50	36 43	36 09	35 33	34 59	34 23	33 49	33 14	32 39	32 04	31 29	30 54	30 19		50
9	00	35 03	34 30	33 56	33 22	32 49	32 16	31 42	31 08	30 35	30 02	29 28	28 55	9	00
	10	33 21	32 49	32 17	31 45	31 12	30 40	30 08	29 36	29 04	28 32	28 01	27 29		10
	20	31 37	31 07	30 36	30 05	29 34	29 04	28 33	28 03	27 32	27 02	26 32	26 02		20
	30	29 50	29 22	28 52	28 23	27 54	27 25	26 57	26 28	25 59	25 30	25 02	24 33		30
	40	28 03	27 35	27 07	26 40	26 13	25 44	25 18	24 51	24 23	23 56	23 28	23 02		40
	50	26 12	25 46	25 20	24 55	24 29	24 03	23 37	23 12	22 46	22 20	21 55	21 29		50
10	00	24 20	23 36	23 31	23 08	22 43	22 19	21 55	21 31	21 08	20 44	20 21	19 56	10	00
	10	22 35	22 03	21 41	21 19	20 56	20 34	20 12	19 50	19 28	19 05	18 43	18 22		10
	20	20 50	20 09	19 48	19 26	19 07	18 47	18 26	18 06	17 46	17 26	17 05	16 46		20
	30	18 52	18 14	17 54	17 35	17 17	16 59	16 42	16 22	16 04	15 45	15 25	15 09		30
	40	16 32	16 16	15 59	15 42	15 26	15 08	14 52	14 36	14 19	14 03	13 47	13 31		40
	50	14 33	14 17	14 02	13 47	13 32	13 18	13 03	12 49	12 34	12 20	12 05	11 52		50
11	00	12 30	12 17	12 04	11 52	11 39	11 26	11 13	11 01	10 49	10 36	10 23	10 12	11	00
	10	10 37	10 16	10 05	9 55	9 44	9 33	9 23	9 12	9 02	8 51	8 41	8 31		10
	20	8 41	8 14	8 05	7 57	7 48	7 40	7 31	7 23	7 14	7 06	6 58	6 49		20
	30	6 42	6 18	6 05	5 58	5 52	5 45	5 39	5 32	5 26	5 20	5 14	5 07		30
	40	4 42	4 08	4 03	3 59	3 55	3 51	3 46	3 42	3 38	3 34	3 29	3 25		40
	50	2 47	2 04	2 02	1 59	1 57	1 55	1 54	1 51	1 49	1 47	1 45	1 43		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 38°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
		00	00	00	00	00	00	00	00	00	00	00	00		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
0	10	9 32	8 31	7 41	6 57	6 20	5 47	5 19	4 53	4 31	4 10	3 51	3 35	1	00
0	20	18 24	16 33	14 59	13 37	12 26	11 24	10 29	9 40	8 56	8 16	7 40	7 07	1	10
0	30	26 14	23 47	21 40	19 47	18 09	16 41	15 23	14 13	13 10	12 13	11 20	10 33	1	20
0	40	32 51	30 03	27 34	25 20	23 21	21 34	19 58	18 30	17 11	15 57	14 51	13 50	1	30
0	50	38 18	35 19	32 38	30 11	27 58	25 58	24 07	22 25	20 54	19 28	18 10	16 57	1	40
1	00	42 42	39 42	36 56	34 22	32 01	29 50	27 50	26 00	24 17	22 42	21 14	19 51	1	50
1	10	46 14	43 16	40 31	37 55	35 31	33 16	31 09	29 12	27 22	25 39	24 03	22 33	2	00
1	20	49 04	46 12	43 30	40 55	38 29	36 12	34 03	32 01	30 07	28 19	26 36	25 01	2	10
1	30	51 19	48 34	45 57	43 26	41 02	38 45	36 35	34 31	32 33	30 42	28 57	27 16	2	20
1	40	53 06	50 29	47 58	45 31	43 09	40 55	38 45	36 41	34 43	32 49	31 00	29 18	2	30
1	50	54 31	52 02	49 36	47 14	44 57	42 45	40 36	38 34	36 35	34 41	32 51	31 07	2	40
2	00	55 39	53 15	50 56	48 40	46 27	44 17	42 12	40 11	38 13	36 19	34 29	32 44	2	50
2	10	56 27	54 13	51 59	49 49	47 40	45 36	43 33	41 33	39 37	37 45	35 55	34 09	3	00
2	20	57 06	54 58	52 51	50 45	48 41	46 39	44 40	42 44	40 50	38 58	37 09	35 24	3	10
2	30	57 34	55 31	53 30	51 28	49 29	47 32	45 36	43 42	41 51	40 02	38 14	36 30	3	20
2	40	57 52	55 55	53 59	52 03	50 08	48 14	46 21	44 31	42 42	40 55	39 09	37 26	3	30
2	50	58 03	56 11	54 19	52 28	50 37	48 47	46 59	45 11	43 24	41 40	39 56	38 14	3	40
3	00	58 07	56 19	54 32	52 45	50 59	49 13	47 27	45 42	43 59	42 16	40 35	38 54	3	50
3	10	58 08	56 21	54 39	52 55	51 13	49 30	47 47	46 06	44 25	42 46	41 06	39 28	4	00
3	20	57 58	56 19	54 39	52 59	51 20	49 41	48 02	46 24	44 46	43 08	41 31	39 55	4	10
3	30	57 45	56 10	54 34	52 58	51 23	49 47	48 10	46 35	44 50	43 25	41 50	40 16	4	20
3	40	57 29	55 58	54 25	52 52	51 20	49 47	48 14	46 41	45 08	43 36	42 03	40 31	4	30
3	50	57 10	55 41	54 12	52 42	51 13	49 43	48 12	46 43	45 12	43 42	42 12	40 42	4	40
4	00	56 46	55 21	53 54	52 27	51 02	49 34	48 07	46 39	45 11	43 44	42 16	40 48	4	50
4	10	56 19	54 57	53 34	52 09	50 46	49 22	47 57	46 31	45 06	43 40	42 15	40 48	5	00
4	20	55 50	54 30	53 10	51 49	50 27	49 05	47 43	46 19	44 57	43 33	42 09	40 46	5	10
4	30	55 18	54 01	52 43	51 24	50 05	48 46	47 25	46 04	44 44	43 23	42 01	40 39	5	20
4	40	54 43	53 29	52 13	50 57	49 39	48 22	47 04	45 46	44 27	43 08	41 49	40 30	5	30
4	50	54 07	52 54	51 40	50 26	49 11	47 57	46 41	45 25	44 08	42 51	41 33	40 15	5	40
5	00	53 27	52 17	51 05	49 53	48 41	47 28	46 14	45 00	43 46	42 31	41 15	39 59	5	50
5	10	52 46	51 37	50 27	49 18	48 07	46 56	45 44	44 33	43 20	42 06	40 53	39 39	6	00
5	20	52 03	50 56	49 48	48 40	47 32	46 22	45 12	44 02	42 52	41 40	40 29	39 16	6	10
5	30	51 17	50 12	49 06	47 59	46 53	45 46	44 38	43 30	42 21	41 11	40 01	38 50	6	20
5	40	50 29	49 26	48 21	47 17	46 13	45 07	44 01	42 54	41 47	40 39	39 31	38 23	6	30
5	50	49 40	48 38	47 36	46 33	45 31	44 26	43 22	42 17	41 11	40 06	39 00	37 52	6	40
6	00	48 48	47 48	46 48	45 47	44 45	43 43	42 40	41 37	40 34	39 29	38 25	37 19	6	50
6	10	47 55	46 57	45 58	44 59	43 59	42 59	41 57	40 55	39 54	38 51	37 48	36 44	7	00
6	20	47 00	46 03	45 06	44 08	43 09	42 11	41 12	40 12	39 12	38 11	37 09	36 07	7	10
6	30	46 03	45 08	44 12	43 15	42 19	41 22	40 24	39 26	38 28	37 28	36 28	35 26	7	20
6	40	45 04	44 10	43 16	42 22	41 26	40 31	39 34	38 37	37 40	36 43	35 45	34 46	7	30
6	50	44 04	43 12	42 19	41 25	40 32	39 38	38 43	37 48	36 52	35 56	35 00	34 03	7	40
7	00	43 03	42 12	41 19	40 27	39 36	38 43	37 50	36 57	36 02	35 08	34 13	33 18	7	50
7	10	41 57	41 06	40 18	39 26	38 37	37 47	36 55	36 02	35 10	34 18	33 25	32 30	8	00
7	20	40 52	40 04	39 16	38 26	37 37	36 48	35 58	35 07	34 17	33 26	32 33	31 41	8	10
7	30	39 45	38 58	38 11	37 24	36 36	35 47	34 58	34 10	33 21	32 32	31 42	30 51	8	20
7	40	38 35	37 50	37 05	36 19	35 32	34 46	33 59	33 12	32 24	31 35	30 47	29 58	8	30
7	50	37 25	36 41	35 57	35 12	34 28	33 42	32 57	32 11	31 25	30 38	29 51	29 05	8	40
8	00	36 12	35 29	34 46	34 04	33 20	32 37	31 52	31 08	30 23	29 39	28 54	28 08	8	50
8	10	34 58	34 17	33 36	32 53	32 12	31 30	30 48	30 05	29 22	28 39	27 55	27 11	9	00
8	20	33 42	33 02	32 22	31 42	31 03	30 21	29 40	28 59	28 18	27 36	26 54	26 12	9	10
8	30	32 24	31 46	31 07	30 28	29 50	29 11	28 31	27 52	27 13	26 33	25 52	25 12	9	20
8	40	31 04	30 28	29 50	29 14	28 37	27 59	27 22	26 44	26 06	25 28	24 49	24 11	9	30
8	50	29 44	29 08	28 33	27 57	27 22	26 46	26 10	25 34	24 57	24 21	23 44	23 07	9	40
9	00	28 21	27 47	27 13	26 39	26 06	25 31	24 56	24 22	23 47	23 12	22 38	22 03	9	50
9	10	26 57	26 25	25 52	25 20	24 48	24 16	23 43	23 10	22 36	22 03	21 30	20 57	10	00
9	20	25 31	25 01	24 29	23 59	23 28	22 58	22 27	21 56	21 25	20 53	20 21	19 49	10	10
9	30	24 03	23 35	23 06	22 37	22 08	21 39	21 10	20 40	20 11	19 42	19 11	18 41	10	20
9	40	22 34	22 08	21 41	21 13	20 45	20 18	19 51	19 24	18 56	18 28	18 00	17 32	10	30
9	50	21 05	20 39	20 12	19 48	19 22	18 58	18 31	18 05	17 40	17 14	16 47	16 21	10	40
10	00	19 32	19 09	18 45	18 22	17 58	17 35	17 11	16 46	16 23	15 58	15 34	15 10	10	50
10	10	18 00	17 38	17 16	16 55	16 33	16 10	15 49	15 27	15 04	14 43	14 20	13 57	11	00
10	20	16 26	16 06	15 46	15 26	15 06	14 46	14 25	14 05	13 45	13 25	13 04	12 45	11	10
10	30	14 51	14 33	14 15	13 56	13 38	13 21	13 02	12 43	12 25	12 07	11 49	11 30	11	20
10	40	13 14	12 58	12 42	12 26	12 10	11 53	11 38	11 21	11 05	10 48	10 32	10 15	11	30
10	50	11 37	11 23	11 09	10 54	10 41	10 26	10 10	9 57	9 44	9 29	9 15	9 00	11	40
11	00	9 59	9 47	9 34	9 22	9 10	8 58	8 45	8 33	8 21	8 08	7 57	7 44	11	50
11	10	8 20	8 10	8 00	7 49	7 39	7 29	7 19	7 09	6 59	6 48	6 38	6 27	12	00
11	20	6 41	6 33	6 24	6 16	6 08	6 00	5 52	5 43	5 35	5 26	5 19	5 10	12	10
11	30	5 01	4 55	4 49	4 42	4 36	4 30	4 24	4 18	4 12	4 06	4 00	3 53	12	20
11	40	3 21	3 17	3 13	3 08	3 04	3 00	2 52	2 48	2 44	2 40	2 36	2 30	12	30
11	50	1 41	1 38	1 36	1 34	1 32	1 30	1 28	1 26	1 24	1 22	1 20	1 17	12	40
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	50

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 38°.		DECLINATION—SAME NAME AS—LATITUDE.										LATITUDE 38°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0
	10	3 19	3 06	2 53	2 41	2 30	2 20	2 10	2 01	1 52	1 44	1 37	10
	20	6 37	6 10	5 43	5 20	4 58	4 37	4 18	4 01	3 44	3 28	3 13	20
	30	9 49	9 08	8 31	7 56	7 23	6 54	6 25	5 59	5 34	5 10	4 47	30
	40	12 54	12 01	11 13	10 28	9 45	9 06	8 29	7 55	7 22	6 50	6 21	40
	50	15 49	14 47	13 48	12 54	12 02	11 15	10 29	9 47	9 07	8 29	7 53	50
1	00	18 34	17 22	16 16	15 13	14 13	13 17	12 25	11 36	10 48	10 04	9 22	1
	10	21 08	19 48	18 35	17 25	16 18	15 15	14 16	13 20	12 27	11 36	10 47	10
	20	23 30	22 05	20 44	19 28	18 15	17 06	16 01	14 59	14 00	13 04	12 09	20
	30	25 40	24 10	22 45	21 23	20 05	18 51	17 40	16 33	15 30	14 28	13 29	30
	40	27 38	26 04	24 35	23 09	21 47	20 28	19 14	18 02	16 54	15 47	14 44	40
	50	29 25	27 48	26 15	24 46	23 21	21 59	20 40	19 25	18 12	17 02	15 55	50
2	00	31 00	29 22	27 47	26 16	24 48	23 23	22 00	20 42	19 27	18 13	17 02	2
	10	32 26	30 46	29 09	27 37	26 07	24 39	23 15	21 53	20 35	19 19	18 05	10
	20	33 40	32 01	30 24	28 49	27 18	25 49	24 22	22 59	21 38	20 20	19 03	20
	30	34 46	33 07	31 30	29 55	28 22	26 52	25 24	23 59	22 36	21 16	19 57	30
	40	35 44	34 05	32 28	30 53	29 20	27 49	26 20	24 53	23 30	22 07	20 47	40
	50	36 33	34 55	33 19	31 44	30 11	28 39	27 10	25 43	24 18	22 55	21 32	50
3	00	37 15	35 38	34 03	32 28	30 55	29 24	27 55	26 27	25 01	23 36	22 14	3
	10	37 59	36 15	34 40	33 06	31 35	30 04	28 34	27 06	25 40	24 14	22 51	10
	20	38 39	36 44	35 11	33 39	32 08	30 38	29 08	27 40	26 14	24 48	23 24	20
	30	38 42	37 10	35 38	34 06	32 36	31 06	29 37	28 09	26 44	25 18	23 54	30
	40	38 59	37 28	35 58	34 28	32 59	31 30	30 02	28 35	27 09	25 43	24 19	40
	50	39 12	37 42	36 14	34 45	33 17	31 49	30 22	28 56	27 31	26 05	24 40	50
4	00	39 20	37 52	36 24	34 58	33 31	32 04	30 38	29 13	27 48	26 24	25 00	4
	10	39 23	37 57	36 32	35 06	33 39	32 15	30 50	29 25	28 02	26 38	25 14	10
	20	39 22	37 58	36 34	35 10	33 46	32 22	30 59	29 35	28 12	26 50	25 27	20
	30	39 17	37 55	36 33	35 11	33 48	32 26	31 03	29 41	28 19	26 57	25 35	30
	40	39 08	37 48	36 28	35 08	33 46	32 25	31 05	29 43	28 23	27 02	25 40	40
	50	38 57	37 39	36 20	35 01	33 41	32 21	31 02	29 42	28 23	27 03	25 43	50
5	00	38 41	37 26	36 09	34 51	33 33	32 15	30 57	29 38	28 20	27 01	25 42	5
	10	38 24	37 09	35 54	34 39	33 22	32 05	30 49	29 32	28 15	26 58	25 39	10
	20	38 03	36 50	35 36	34 23	33 08	31 53	30 38	29 22	28 07	26 50	25 34	20
	30	37 39	36 28	35 16	34 04	32 51	31 38	30 24	29 10	27 56	26 42	25 26	30
	40	37 13	36 04	34 54	33 43	32 32	31 20	30 07	28 55	27 43	26 32	25 15	40
	50	36 45	35 37	34 28	33 20	32 09	30 59	29 49	28 38	27 27	26 14	25 02	50
6	00	36 13	35 07	34 01	32 54	31 45	30 36	29 28	28 19	27 09	25 58	24 48	6
	10	35 40	34 35	33 30	32 25	31 19	30 12	29 04	27 57	26 49	25 40	24 30	10
	20	35 04	34 02	32 58	31 55	30 50	29 45	28 39	27 33	26 26	25 18	24 11	20
	30	34 27	33 24	32 24	31 22	30 19	29 16	28 11	27 06	26 01	24 56	23 49	30
	40	33 47	32 47	31 47	30 47	29 45	28 43	27 41	26 38	25 35	24 31	23 25	40
	50	33 06	32 07	31 09	30 11	29 11	28 10	27 10	26 08	25 06	24 04	23 01	50
7	00	32 21	31 26	30 29	29 31	28 34	27 35	26 36	25 36	24 36	23 35	22 34	7
	10	31 36	30 42	29 46	28 51	27 54	26 58	26 00	25 02	24 04	23 05	22 05	10
	20	30 48	29 56	29 02	28 08	27 14	26 18	25 23	24 26	23 30	22 32	21 34	20
	30	29 59	29 08	28 16	27 24	26 31	25 38	24 44	23 49	22 55	21 59	21 02	30
	40	29 09	28 19	27 28	26 38	25 47	24 56	24 04	23 11	22 18	21 24	20 29	40
	50	28 16	27 29	26 40	25 51	25 02	24 12	23 21	22 30	21 39	20 47	19 54	50
8	00	27 22	26 36	25 49	25 02	24 14	23 26	22 38	21 48	20 58	20 09	19 18	8
	10	26 26	25 42	24 57	24 12	23 25	22 39	21 53	21 05	20 17	19 29	18 40	10
	20	25 29	24 47	24 03	23 19	22 36	21 51	21 06	20 20	19 35	18 48	18 01	20
	30	24 30	23 49	23 08	22 26	21 44	21 01	20 18	19 34	18 51	18 05	17 21	30
	40	23 31	22 51	22 11	21 32	20 51	20 10	19 29	18 47	18 05	17 22	16 39	40
	50	22 29	21 52	21 14	20 36	19 57	19 18	18 38	17 58	17 18	16 38	15 56	50
9	00	21 27	20 51	20 14	19 35	18 52	18 24	17 46	17 09	16 30	15 52	15 13	9
	10	20 23	19 48	19 14	18 40	18 05	17 29	16 54	16 18	15 41	15 04	14 28	10
	20	19 17	18 45	18 13	17 40	17 07	16 34	16 01	15 26	14 52	14 17	13 42	20
	30	18 11	17 41	17 10	16 40	16 08	15 37	15 05	14 33	14 01	13 28	12 55	30
	40	17 04	16 35	16 07	15 38	15 08	14 39	14 09	13 39	13 09	12 38	12 07	40
	50	15 55	15 28	15 02	14 35	14 07	13 40	13 13	12 45	12 16	11 48	11 19	50
10	00	14 46	14 21	13 56	13 31	13 06	12 41	12 15	11 49	11 23	10 57	10 29	10
	10	13 35	13 12	12 50	12 26	12 03	11 40	11 16	10 52	10 29	10 05	9 39	20
	20	12 24	12 03	11 42	11 21	11 00	10 39	10 17	9 55	9 34	9 12	8 46	30
	30	11 11	10 53	10 34	10 16	9 57	9 37	9 18	8 58	8 39	8 19	7 58	40
	40	9 59	9 42	9 25	9 09	8 52	8 34	8 17	7 59	7 42	7 24	7 06	50
	50	8 45	8 31	8 16	8 01	7 46	7 32	7 16	7 01	6 46	6 30	6 14	50
11	00	7 31	7 19	7 06	6 53	6 40	6 27	6 14	6 01	5 49	5 35	5 21	11
	10	6 17	6 06	5 56	5 45	5 34	5 24	5 13	5 02	4 51	4 40	4 29	10
	20	5 03	4 54	4 45	4 37	4 29	4 19	4 11	4 02	3 53	3 44	3 35	20
	30	3 46	3 41	3 34	3 27	3 21	3 14	3 06	3 01	2 55	2 49	2 43	30
	40	2 31	2 27	2 23	2 19	2 14	2 10	2 06	2 02	1 56	1 51	1 46	40
	50	1 16	1 14	1 12	1 09	1 07	1 05	1 03	1 01	0 59	0 56	0 54	50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 39°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 39°.	
Hour Angle.		21°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.													h.	m.
		0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°		
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	171 13	170 42	170 05	169 23	168 33	167 34	166 22	165 00	163 02	160 37	157 21	153 43	1	10
	20	162 46	161 46	160 38	159 20	157 49	156 03	153 57	151 25	148 20	144 31	139 42	133 32		20
	30	154 50	153 29	151 57	150 13	148 14	145 58	143 39	140 15	136 40	132 24	127 23	121 26		30
	40	147 37	146 00	144 11	142 11	139 56	137 25	134 34	131 20	127 41	123 31	118 49	113 31		40
	50	141 07	139 20	137 24	135 15	132 54	130 19	127 26	124 16	120 45	116 53	112 37	107 59		50
1	00	135 20	133 30	131 30	129 19	126 58	124 22	121 35	118 34	115 17	111 44	107 55	103 50	1	00
	10	130 12	128 20	126 21	124 11	121 52	119 24	116 44	113 54	110 51	107 37	104 11	100 33		10
	20	125 39	123 48	121 50	119 44	117 31	115 09	112 39	110 00	107 12	104 14	101 06	97 51		20
	30	121 36	119 47	117 53	115 51	113 43	111 29	109 07	106 38	104 03	101 20	98 30	95 33		30
	40	117 57	116 12	114 22	112 25	110 23	108 16	106 03	103 45	101 20	98 50	96 14	93 33		40
	50	114 41	112 59	111 13	109 21	107 26	105 26	103 20	101 10	98 56	96 36	94 13	91 45		50
2	00	111 42	110 03	108 22	106 35	104 46	102 52	100 54	98 52	96 46	94 36	92 23	90 06	2	00
	10	108 58	107 24	105 47	104 05	102 20	100 32	98 41	96 45	94 48	92 47	90 42	88 35		10
	20	106 27	104 57	103 23	101 46	100 07	98 24	96 39	94 50	92 59	91 05	89 06	87 06		20
	30	104 07	102 41	101 11	99 38	98 02	96 25	94 45	93 02	91 17	89 29	87 39	85 47		30
	40	101 56	100 33	99 07	97 38	96 07	94 34	92 58	91 21	89 41	87 59	86 15	84 29		40
	50	99 54	98 33	97 10	95 45	94 18	92 49	91 18	89 45	88 10	86 33	84 55	83 15		50
3	00	97 58	96 40	95 20	93 58	92 35	91 10	89 43	88 13	86 43	85 11	83 37	82 01	3	00
	10	96 08	94 52	93 35	92 16	90 55	89 33	88 10	86 45	85 18	83 51	82 21	80 49		10
	20	94 22	93 09	91 55	90 39	89 21	88 02	86 42	85 20	83 57	82 33	81 07	79 40		20
	30	92 41	91 30	90 18	89 04	87 49	86 33	85 16	83 58	82 36	81 13	79 55	78 31		30
	40	91 03	89 54	88 45	87 33	86 21	85 07	83 53	82 37	81 21	80 03	78 44	77 23		40
	50	89 27	88 22	87 14	86 05	84 55	83 44	82 32	81 18	80 05	78 49	77 34	76 16		50
4	00	87 56	86 51	85 45	84 38	83 31	82 22	81 13	80 01	78 50	77 38	76 24	75 10	4	00
	10	86 25	85 22	84 18	83 13	82 08	81 01	79 54	78 45	77 36	76 26	75 15	74 03		10
	20	84 57	83 56	82 53	81 50	80 47	79 41	78 36	77 30	76 23	75 15	74 06	72 55		20
	30	83 30	82 30	81 30	80 28	79 26	78 22	77 19	76 15	75 09	74 04	72 57	71 51		30
	40	82 05	81 06	80 07	79 07	78 06	77 04	76 04	75 00	73 57	72 53	71 48	70 42		40
	50	80 41	79 43	78 45	77 46	76 48	75 48	74 47	73 46	72 45	71 43	70 39	69 35		50
5	00	79 16	78 19	77 23	76 25	75 28	74 30	73 31	72 31	71 31	70 31	69 30	68 28	5	00
	10	77 52	76 57	76 02	75 06	74 09	73 12	72 15	71 17	70 18	69 19	68 20	67 19		10
	20	76 29	75 35	74 41	73 46	72 51	71 55	70 59	70 03	69 05	68 07	67 09	66 10		20
	30	75 06	74 13	73 20	72 26	71 32	70 37	69 43	68 47	67 51	66 55	65 58	64 59		30
	40	73 42	72 51	71 58	71 06	70 13	69 19	68 25	67 31	66 37	65 41	64 46	63 51		40
	50	72 19	71 28	70 37	69 45	68 54	68 01	67 08	66 15	65 22	64 28	63 34	62 39		50
6	00	70 55	70 05	69 15	68 24	67 33	66 41	65 50	64 58	64 05	63 13	62 20	61 26	6	00
	10	69 30	68 41	67 51	67 01	66 12	65 21	64 31	63 40	62 48	61 58	61 05	60 13		10
	20	68 05	67 17	66 28	65 39	64 50	64 00	63 11	62 22	61 31	60 41	59 50	58 59		20
	30	66 39	65 51	65 04	64 15	63 27	62 38	61 50	61 01	60 12	59 23	58 33	57 43		30
	40	65 11	64 25	63 38	62 50	62 03	61 15	60 28	59 40	58 52	58 03	57 15	56 26		40
	50	63 43	62 57	62 11	61 25	60 38	59 51	59 05	58 18	57 31	56 43	55 56	55 08		50
7	00	62 13	61 29	60 43	59 57	59 11	58 25	57 40	56 53	56 08	55 22	54 35	53 47	7	00
	10	60 42	59 57	59 12	58 27	57 43	56 57	56 14	55 28	54 43	53 58	53 12	52 26		10
	20	59 09	58 26	57 41	56 57	56 13	55 30	54 46	54 01	53 16	52 33	51 48	51 03		20
	30	57 34	56 52	56 09	55 26	54 43	53 59	53 16	52 32	51 49	51 05	50 23	49 39		30
	40	55 58	55 16	54 34	53 51	53 09	52 27	51 45	51 02	50 20	49 38	48 55	48 13		40
	50	54 20	53 39	52 57	52 15	51 34	50 53	50 12	49 30	48 48	48 08	47 26	46 44		50
8	00	52 40	51 59	51 18	50 38	49 57	49 16	48 37	47 56	47 16	46 35	45 55	45 14	8	00
	10	50 57	50 18	49 38	48 58	48 19	47 38	46 59	46 20	45 40	45 01	44 22	43 42		10
	20	49 12	48 34	47 55	47 16	46 36	45 58	45 20	44 41	44 03	43 26	42 47	42 09		20
	30	47 25	46 47	46 09	45 31	44 54	44 16	43 39	43 01	42 24	41 48	41 10	40 33		30
	40	45 35	44 58	44 22	43 45	43 08	42 31	41 55	41 18	40 43	40 07	39 31	38 55		40
	50	43 43	43 07	42 31	41 55	41 20	40 44	40 10	39 35	38 59	38 25	37 50	37 15		50
9	00	41 48	41 13	40 38	40 05	39 30	38 55	38 21	37 47	37 14	36 40	36 06	35 33	9	00
	10	39 49	39 16	38 42	38 09	37 37	37 04	36 31	35 58	35 25	34 54	34 22	33 50		10
	20	37 49	37 17	36 45	36 13	35 41	35 08	34 38	34 07	33 36	33 05	32 35	32 04		20
	30	35 15	35 15	34 44	34 13	33 43	33 13	32 43	32 12	31 43	31 14	30 44	30 15		30
	40	33 39	33 10	32 40	32 11	31 42	31 13	30 45	30 16	29 49	29 21	28 53	28 25		40
	50	31 30	31 02	30 34	30 06	29 39	29 11	28 45	28 18	27 52	27 26	26 59	26 33		50
10	00	29 18	28 51	28 26	27 59	27 34	27 08	26 43	26 17	25 53	25 29	25 04	24 39	10	00
	10	27 03	26 38	26 14	25 49	25 26	25 01	24 38	24 15	23 51	23 28	23 06	22 44		10
	20	24 46	24 22	24 00	23 37	23 16	22 53	22 31	22 10	21 49	21 27	21 06	20 45		20
	30	22 26	22 04	21 44	21 23	21 03	20 43	20 23	20 03	19 44	19 24	19 06	18 47		30
	40	20 03	19 44	19 25	19 07	18 48	18 30	18 13	17 55	17 37	17 20	17 03	16 46		40
	50	17 38	17 21	17 04	16 48	16 32	16 16	16 00	15 44	15 29	15 13	14 59	14 43		50
11	00	15 11	14 56	14 42	14 27	14 13	14 00	13 46	13 33	13 19	13 06	12 53	12 40	11	00
	10	12 42	12 30	12 18	12 06	11 53	11 42	11 31	11 19	11 09	10 57	10 45	10 34		10
	20	10 12	10 02	9 51	9 42	9 33	9 23	9 14	9 05	8 56	8 46	8 38	8 29		20
	30	7 39	7 32	7 25	7 17	7 10	7 04	6 56	6 49	6 43	6 36	6 29	6 23		30
	40	5 07	5 03	4 57	4 52	4 47	4 43	4 38	4 34	4 29	4 25	4 20	4 16		40
	50	2 34	2 31	2 29	2 26	2 24	2 22	2 19	2 16	2 15	2 12	2 10	2 07		50
12	00	0 06	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 39°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 39°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°		Hour Angle.		
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.	
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00	
	10	145 45	134 40	116 17	89 13	61 48	42 58	31 33	24 27	19 43	16 23	13 55	12 02	10 00		10	
	20	125 33	115 22	102 47	87 38	73 54	60 51	50 08	41 43	35 12	30 07	26 06	22 53	20 00		20	
	30	114 26	106 21	97 19	87 38	77 50	68 25	59 51	52 20	45 54	40 26	35 50	31 56	30 00		30	
	40	107 37	101 07	94 09	86 51	79 27	72 11	65 16	58 52	53 02	47 49	43 12	39 07	40 00		40	
	50	102 57	97 35	91 55	86 03	80 07	74 13	68 29	63 06	57 51	53 04	48 46	44 40	50 00		50	
1	00	99 29	94 55	90 09	85 16	80 18	75 21	70 28	65 43	61 09	56 49	52 45	48 55	1	00		
	10	96 45	92 46	88 41	84 28	80 12	75 56	71 41	67 31	63 27	59 32	55 46	52 13		10		
	20	94 28	90 58	87 21	83 40	79 56	76 10	72 25	68 42	65 03	61 30	58 04	54 43		20		
	30	92 31	89 27	86 08	82 52	79 32	76 11	72 49	69 29	66 10	62 54	59 44	56 38		30		
	40	90 47	87 56	85 02	82 03	79 03	76 01	72 58	69 56	66 55	63 56	60 59	58 06		40		
	50	89 13	86 36	83 57	81 15	78 30	75 45	72 57	70 11	67 24	64 38	61 54	59 12		50		
2	00	87 45	85 22	82 54	80 26	77 55	75 21	72 49	70 14	67 39	65 06	62 33	60 01	2	00		
	10	85 23	83 02	80 50	78 47	76 37	74 24	72 12	69 57	67 43	65 29	63 14	61 00		10		
	20	83 52	81 56	79 57	77 56	75 55	73 52	71 47	69 41	67 35	65 21	63 11	61 14		20		
	30	82 41	80 51	78 59	77 06	75 11	73 15	71 18	69 20	67 21	65 21	63 21	61 20		30		
	40	81 31	79 48	78 02	76 15	74 26	72 37	70 45	68 54	67 01	65 08	63 14	61 20		40		
	50															50	
3	00	80 24	78 46	77 06	75 23	73 40	71 56	70 13	68 25	66 38	64 50	63 02	61 13	3	00		
	10	79 17	77 43	76 08	74 31	72 54	71 14	69 35	67 53	66 12	64 28	62 45	61 01		10		
	20	78 12	76 42	75 11	73 39	72 06	70 31	68 56	67 19	65 42	64 04	62 25	60 45		20		
	30	77 07	75 40	74 14	72 45	71 16	69 45	68 14	66 43	65 09	63 35	62 00	60 25		30		
	40	76 03	74 40	73 17	71 52	70 26	69 00	67 32	66 03	64 34	63 04	61 33	60 01		40		
	50	74 58	73 39	72 19	70 57	69 35	68 11	66 48	65 22	63 56	62 30	61 03	59 34		50		
4	00	73 54	72 38	71 20	70 02	68 43	67 22	66 02	64 40	63 17	61 54	60 29	59 05	4	00		
	10	72 59	71 36	70 21	69 06	67 50	66 32	65 14	63 55	62 35	61 15	59 54	58 32		10		
	20	71 46	70 34	69 22	68 09	66 55	65 40	64 25	63 09	61 53	60 35	59 16	57 57		20		
	30	70 42	69 32	68 23	67 11	66 00	64 48	63 35	62 21	61 07	59 52	58 36	57 20		30		
	40	69 37	68 30	67 22	66 13	65 04	63 54	62 44	61 32	60 20	59 07	57 54	56 40		40		
	50	68 32	67 26	66 20	65 14	64 07	62 59	61 51	60 41	59 31	58 21	57 09	55 58		50		
5	00	67 25	66 22	65 18	64 13	63 08	62 02	60 56	59 49	58 41	57 32	56 23	55 14	5	00		
	10	66 18	65 17	64 15	63 12	62 09	61 04	60 01	58 55	57 49	56 43	55 36	54 28		10		
	20	65 11	64 12	63 11	62 10	61 09	60 06	59 03	58 00	56 56	55 51	54 46	53 40		20		
	30	64 03	63 05	62 06	61 06	60 07	59 06	58 05	57 05	56 01	55 04	54 03	53 01		30		
	40	62 54	61 57	61 00	60 02	59 04	58 05	57 05	56 05	55 04	54 03	53 01	51 59		40		
	50	61 44	60 48	59 53	58 56	57 59	57 01	56 04	55 05	54 06	53 08	52 07	51 07		50		
6	00	60 33	59 39	58 44	57 49	56 53	55 57	55 02	54 04	53 07	52 09	51 10	50 11	6	00		
	10	59 28	58 36	57 43	56 47	55 51	54 54	53 57	53 01	52 06	51 09	50 12	49 15		10		
	20	58 23	57 32	56 39	55 45	54 50	53 55	52 59	51 57	51 03	50 08	49 13	48 16		20		
	30	57 18	56 28	55 37	54 44	53 50	52 56	51 54	50 52	49 50	48 50	47 51	46 51		30		
	40	56 13	55 24	54 33	53 40	52 47	51 54	50 56	49 56	48 55	47 57	46 58	45 58		40		
	50	55 10	54 20	53 31	52 43	51 54	51 05	50 15	49 26	48 35	47 45	46 55	45 55		50		
7	00	54 01	53 13	52 26	51 39	50 52	49 59	49 03	48 14	47 25	46 36	45 46	44 57	7	00		
	10	53 11	52 25	51 38	50 51	49 58	49 03	48 14	47 25	46 36	45 46	44 57	44 07		10		
	20	52 19	51 35	50 48	49 58	49 03	48 14	47 25	46 36	45 46	44 57	44 07	43 16		20		
	30	51 28	50 44	49 56	49 03	48 14	47 25	46 36	45 46	44 57	44 07	43 16	42 25		30		
	40	50 36	49 51	49 03	48 14	47 25	46 36	45 46	44 57	44 07	43 16	42 25	41 34		40		
	50	49 43	48 57	48 08	47 18	46 28	45 39	44 50	44 01	43 12	42 23	41 34	40 45		50		
8	00	48 50	48 03	47 14	46 25	45 36	44 47	43 58	43 09	42 20	41 31	40 42	39 53	8	00		
	10	48 03	47 15	46 26	45 37	44 48	43 59	43 10	42 21	41 32	40 43	39 54	39 05		10		
	20	47 16	46 27	45 38	44 49	44 00	43 11	42 22	41 33	40 44	39 55	39 06	38 17		20		
	30	46 29	45 40	44 51	44 02	43 13	42 24	41 35	40 46	39 57	39 08	38 19	37 30		30		
	40	45 42	44 53	44 04	43 15	42 26	41 37	40 48	39 59	39 10	38 21	37 32	36 43		40		
	50	44 55	44 06	43 17	42 28	41 39	40 50	39 61	38 72	37 83	36 94	36 05	35 16		50		
9	00	44 08	43 19	42 30	41 41	40 52	39 63	38 74	37 85	36 96	36 07	35 18	34 29	9	00		
	10	43 21	42 32	41 43	40 54	39 65	38 76	37 87	36 98	36 09	35 20	34 31	33 42		10		
	20	42 34	41 45	40 56	39 67	38 78	37 89	37 00	36 11	35 22	34 33	33 44	32 55		20		
	30	41 47	40 58	40 09	39 20	38 31	37 42	36 53	35 64	34 75	33 86	32 97	32 08		30		
	40	41 00	40 11	39 22	38 33	37 44	36 55	35 66	34 77	33 88	32 99	32 10	31 21		40		
	50	40 13	39 24	38 35	37 46	36 57	35 68	34 79	33 90	33 01	32 12	31 23	30 34		50		
10	00	39 26	38 37	37 48	36 59	35 70	34 81	33 92	33 03	32 14	31 25	30 36	29 47	10	00		
	10	38 39	37 50	37 01	36 12	35 23	34 34	33 45	32 56	31 67	30 78	29 89	29 00		10		
	20	37 52	37 03	36 14	35 25	34 36	33 47	32 58	31 69	30 80	29 91	29 02	28 13		20		
	30	37 05	36 16	35 27	34 38	33 49	32 60	31 71	30 82	29 93	29 04	28 15	27 26		30		
	40	36 18	35 29	34 40	33 51	33 02	32 13	31 24	30 35	29 46	28 57	28 08	27 19		40		
	50	35 31	34 42	33 53	33 04	32 15	31 26	30 37	29 48	28 59	28 10	27 21	26 32		50		
11	00	34 44	33 55	33 06	32 17	31 28	30 39	29 50	29 01	28 12	27 23	26 34	25 45	11	00		
	10	33 57	33 08	32 19	31 30	30 41	29 52	29 03	28 14	27 25	26 36	25 47	24 58		10		
	20	33 10	32 21	31 32	30 43	29 54	29 05	28 16	27 27	26 38	25 49	24 60	23 71		20		
	30	32 23	31 34	30 45	29 56	29 07	28 18	27 29	26 40	25 51	25 02	24 13	23 24		30		
	40	31 36	30 47	29 58	29 09	28 20	27 31	26 42	25 53	25 04	24 15	23 26	22 37		40		
	50	30 49	29 60	28 71	27 82	26 93	26 04	25 15	24 26	23 37	22 48	21 59	21 10		50		
12	00	30 02	29 13	28 24	27 35	26 46	25 57	25 08	24 19	23 30	22 41	21 52	21 03	12	00		
	10	29 15	28 26	27 37	26 48	25 59	25 10	24 21	23 32	22 43	21 54	21 05	20 16		10		
	20	28 28	27 39	26 50	26 01	25 12	24 23	23 34	22 45	21 56	21 07	20 18	19 29		20		
	30	27 41	26 52	26 03	25 14	24 25	23 36	22 47	21 58	21 09	20 20	19 31	18 42		30		
	40	26 54	26 05	25 16	24 27	23 38	22 49	21 60	20 71	19 82	18 93	18 04	17 15		40		
	50	26 07	25 18	24 29	23 40	22 51	22 02	21 13	20 24	19 35	18 46	17 57	17 08		50		
13	00	25 20	24 31	23 42	22 53	22 04	21 15	20 26	19 37	18 48	17 59	17 10	16 21	13	00		
	10	24															

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the **latitude and declination** are of **different name**, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 40°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 40°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	180 00	180 00	180 00	180 00	80 12	61 27	42 31	31 09	24 06	19 24	16 06	13 40	0	00
	10	153 53	146 06	135 02	116 36	88 24	73 39	60 27	49 41	41 15	34 44	29 41	25 42		10
	20	133 53	125 54	115 39	102 56	87 35	77 38	68 06	59 27	51 52	45 23	39 55	35 20		20
	30	121 44	114 42	106 33	97 24	86 47	79 17	71 55	64 55	58 26	52 33	47 18	42 40		30
	40	113 46	107 48	101 15	94 11	85 59	79 57	73 58	68 09	62 36	57 23	52 33	48 09		40
	50	108 09	103 05	97 38	91 55	85 59	80 08	75 06	70 09	65 20	60 43	56 20	52 14		50
1	00	103 58	99 34	94 57	90 08	85 10	80 02	75 41	71 23	67 09	63 01	59 04	55 16	1	00
	10	100 38	96 48	92 46	88 36	84 21	80 02	75 56	72 07	68 21	64 39	61 03	57 33		10
	20	97 54	94 29	90 56	87 16	83 32	79 45	75 56	72 31	69 08	65 46	62 29	59 15		20
	30	95 34	92 29	89 18	86 02	82 43	79 20	75 46	72 41	69 36	66 31	63 30	60 31		30
	40	93 31	90 43	87 50	84 53	81 53	78 50	75 29	72 43	69 50	67 00	64 13	61 27		40
	50	91 42	89 07	86 30	83 48	81 04	78 17	75 29	72 43	69 50	67 00	64 13	61 27		50
2	00	90 01	87 39	85 13	82 45	80 13	77 41	75 06	72 30	69 54	67 17	64 41	62 06	2	00
	10	88 27	86 16	84 00	81 43	79 23	77 02	74 38	72 14	69 48	67 23	64 56	62 32		10
	20	87 01	84 57	82 51	80 43	78 33	76 21	74 07	71 52	69 37	67 21	65 04	62 47		20
	30	85 37	83 42	81 43	79 43	77 41	75 38	73 33	71 26	69 19	67 11	65 03	62 55		30
	40	84 18	82 29	80 38	78 45	76 50	74 54	72 57	70 57	68 57	66 56	64 55	62 54		40
	50	83 02	81 18	79 33	77 46	75 58	74 09	72 17	70 25	68 31	66 37	64 42	62 46		50
3	00	81 47	80 09	78 29	76 48	75 05	73 22	71 36	69 50	68 02	66 14	64 24	62 35	3	00
	10	80 35	79 05	77 26	75 50	74 12	72 33	70 53	69 12	67 30	65 47	64 02	62 17		10
	20	79 24	77 55	76 23	74 52	73 19	71 44	70 09	68 32	66 55	65 16	63 37	61 56		20
	30	78 14	76 49	75 21	73 54	72 25	70 55	69 23	67 51	66 18	64 43	63 08	61 32		30
	40	77 05	75 43	74 19	72 56	71 30	70 03	68 35	67 08	65 38	64 07	62 36	61 04		40
	50	75 57	74 37	73 18	71 57	70 34	69 11	67 47	66 22	64 56	63 30	62 02	60 34		50
4	00	74 48	73 33	72 16	70 57	69 38	68 19	66 58	65 36	64 13	62 49	61 25	60 00	4	00
	10	73 40	72 27	71 13	69 58	68 41	67 25	66 06	64 47	63 28	62 07	60 45	59 23		10
	20	72 33	71 22	70 10	68 57	67 44	66 29	65 14	63 58	62 41	61 24	60 04	58 45		20
	30	71 28	70 17	69 07	67 56	66 45	65 34	64 21	63 07	61 53	60 37	59 21	58 05		30
	40	70 17	69 11	68 03	66 56	65 46	64 37	63 27	62 15	61 03	59 50	58 37	57 23		40
	50	69 09	68 05	66 59	65 53	64 46	63 38	62 31	61 21	60 11	59 01	57 49	56 38		50
5	00	68 00	66 58	65 54	64 50	63 45	62 40	61 33	60 26	59 18	58 09	57 00	55 51	5	00
	10	66 51	65 50	64 48	63 45	62 43	61 39	60 35	59 29	58 24	57 18	56 10	55 03		10
	20	66 41	65 42	64 41	63 41	62 41	61 40	60 36	59 35	58 32	57 28	56 24	55 18		20
	30	66 30	65 33	64 34	63 35	62 35	61 35	60 35	59 35	58 34	57 33	56 31	55 28		30
	40	66 19	65 23	64 25	63 28	62 30	61 30	60 30	59 30	58 32	57 32	56 32	55 32		40
	50	66 07	65 12	64 17	63 21	62 24	61 27	60 29	59 31	58 33	57 33	56 33	55 33		50
6	00	66 54	66 01	65 06	64 11	63 16	62 21	61 25	60 28	59 31	58 33	57 34	56 36	6	00
	10	66 40	65 47	64 52	63 57	63 02	62 07	61 13	60 18	59 23	58 28	57 33	56 38		10
	20	66 24	65 33	64 42	63 50	63 00	62 09	61 18	60 26	59 35	58 44	57 53	57 02		20
	30	66 09	65 19	64 28	63 37	62 47	61 57	61 06	60 15	59 25	58 34	57 44	56 53		30
	40	65 55	65 05	64 15	63 25	62 35	61 45	60 55	60 05	59 15	58 25	57 35	56 45		40
	50	65 42	64 54	64 06	63 18	62 30	61 42	60 54	60 06	59 18	58 29	57 41	56 52		50
7	00	65 32	64 44	63 56	63 08	62 20	61 32	60 44	59 56	59 08	58 20	57 32	56 44	7	00
	10	65 18	64 30	63 42	62 54	62 06	61 18	60 30	59 42	58 54	58 06	57 18	56 30		10
	20	65 04	64 16	63 28	62 40	61 52	61 04	60 16	59 28	58 40	57 52	57 04	56 16		20
	30	64 50	64 02	63 14	62 26	61 38	60 50	60 02	59 14	58 26	57 38	56 50	56 02		30
	40	64 35	63 48	63 00	62 12	61 24	60 36	59 48	59 00	58 12	57 24	56 36	55 48		40
	50	64 20	63 33	62 45	61 57	61 09	60 21	59 33	58 45	57 57	57 09	56 21	55 33		50
8	00	64 06	63 18	62 30	61 42	60 54	60 06	59 18	58 30	57 42	56 54	56 06	55 18	8	00
	10	63 52	63 04	62 16	61 28	60 40	59 52	59 04	58 16	57 28	56 40	55 52	55 04		10
	20	63 38	62 50	62 02	61 14	60 26	59 38	58 50	58 02	57 14	56 26	55 38	54 50		20
	30	63 24	62 36	61 48	61 00	60 12	59 24	58 36	57 48	57 00	56 12	55 24	54 36		30
	40	63 10	62 22	61 34	60 46	59 58	59 10	58 22	57 34	56 46	55 58	55 10	54 22		40
	50	62 56	62 08	61 20	60 32	59 44	58 56	58 08	57 20	56 32	55 44	54 56	54 08		50
9	00	62 42	61 54	61 06	60 18	59 30	58 42	57 54	57 06	56 18	55 30	54 42	53 54	9	00
	10	62 28	61 40	60 52	60 04	59 16	58 28	57 40	56 52	56 04	55 16	54 28	53 40		10
	20	62 14	61 26	60 38	59 50	59 02	58 14	57 26	56 38	55 50	55 02	54 14	53 26		20
	30	62 00	61 12	60 24	59 36	58 48	58 00	57 12	56 24	55 36	54 48	54 00	53 12		30
	40	61 46	60 58	60 10	59 22	58 34	57 46	56 58	56 10	55 22	54 34	53 46	52 58		40
	50	61 32	60 44	59 56	59 08	58 20	57 32	56 44	55 56	55 08	54 20	53 32	52 44		50
10	00	61 18	60 30	59 42	58 54	58 06	57 18	56 30	55 42	54 54	54 06	53 18	52 30	10	00
	10	61 04	60 16	59 28	58 40	57 52	57 04	56 16	55 28	54 40	53 52	53 04	52 16		10
	20	60 50	60 02	59 14	58 26	57 38	56 50	56 02	55 14	54 26	53 38	52 50	52 02		20
	30	60 36	59 48	59 00	58 12	57 24	56 36	55 48	55 00	54 12	53 24	52 36	51 48		30
	40	60 22	59 34	58 46	57 58	57 10	56 22	55 34	54 46	53 58	53 10	52 22	51 34		40
	50	60 08	59 20	58 32	57 44	56 56	56 08	55 20	54 32	53 44	52 56	52 08	51 20		50
11	00	60 00	59 12	58 24	57 36	56 48	55 60	54 72	53 84	52 96	52 08	51 20	50 32	11	00
	10	59 46	58 58	58 10	57 22	56 34	55 46	54 58	54 10	53 22	52 34	51 46	50 58		10
	20	59 32	58 44	57 56	57 08	56 20	55 32	54 44	53 56	53 08	52 20	51 32	50 44		20
	30	59 18	58 30	57 42	56 54	56 06	55 18	54 30	53 42	52 54	52 06	51 18	50 30		30
	40	59 04	58 16	57 28	56 40	55 52	55 04	54 16	53 28	52 40	51 52	51 04	50 16		40
	50	58 50	58 02	57 14	56 26	55 38	54 50	54 02	53 14	52 26	51 38	50 50	49 62		50
12	00	58 36	57 48	56 60	55 72	54 84	53 96	53 08	52 20	51 32	50 44	49 56	49 08	12	00
	10	58 22	57 34	56 46	55 58	55 10	54 22	53 34	52 46	51 58	51 10	50 22	49 34		10
	20	58 08	57 20	56 32	55 44	54 56	54 08	53 20	52 32	51 44	50 56	50 08	49 20		20
	30	57 54	57 06	56 18	55 30	54 42	53 54	53 06	52 18	51 30	50 42	49 54	49 06		30
	40	57 40	56 52	56 04	55 16	54 28	53 40	52 52	52 04	51 16	50 28	49 40	48 52		40
	50	57 26	56 38	55 50	55 02	54 14	53 26	52 38	51 50	51 02	50 14	49 26	48 38		50

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 40°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 40°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.													h.	m.
		0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°		
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	11 49	10 20	9 09	8 10	7 21	6 38	6 03	5 31	5 03	4 38	4 17	3 57	1	10
	20	22 30	19 53	17 43	15 55	14 23	13 02	11 54	10 52	9 58	9 11	8 28	7 49		20
	30	31 26	28 09	25 20	22 55	20 49	19 00	17 23	15 57	14 40	13 32	12 30	11 34		30
	40	38 35	34 59	31 49	29 02	26 34	24 22	22 24	20 39	19 04	17 38	16 19	15 08		40
	50	44 07	40 28	37 10	34 12	31 31	29 06	26 53	24 54	23 04	21 24	19 53	18 29		50
1	00	48 24	44 50	41 33	38 32	35 45	33 11	30 51	28 41	26 41	24 51	23 09	21 35	1	00
	10	51 41	48 16	45 05	42 05	39 18	36 41	34 16	32 01	29 55	27 58	26 08	24 26		10
	20	54 12	50 58	47 55	45 00	42 16	39 39	37 13	34 55	32 45	30 44	28 49	27 01		20
	30	56 08	53 06	50 11	47 23	44 43	42 09	39 44	37 25	35 14	33 10	31 11	29 20		30
	40	57 36	54 45	51 59	49 18	46 43	44 14	41 51	39 34	37 23	35 18	33 18	31 24		40
	50	58 43	56 02	53 25	50 51	48 23	45 57	43 39	41 23	39 14	37 09	35 09	33 14		50
2	00	59 33	57 01	54 32	52 06	49 43	47 24	45 08	42 57	40 49	38 46	36 46	34 51	2	00
	10	60 07	57 45	55 24	53 04	50 48	48 33	46 22	44 14	42 09	40 07	38 10	36 15		10
	20	60 31	58 16	56 02	53 49	51 38	49 29	47 22	45 18	43 16	41 17	39 21	37 28		20
	30	60 46	58 38	56 30	54 24	52 18	50 14	48 12	46 11	44 12	42 17	40 22	38 31		30
	40	60 51	58 50	56 48	54 48	52 48	50 48	48 50	46 53	44 58	43 05	41 13	39 25		40
	50	60 51	58 55	56 59	55 04	53 08	51 13	49 20	47 27	45 35	43 45	41 56	40 09		50
3	00	60 44	58 54	57 03	55 12	53 21	51 31	49 42	47 53	46 04	44 17	42 30	40 45	3	00
	10	60 32	58 47	57 00	55 14	53 27	51 41	49 56	48 11	46 26	44 41	42 58	41 15		10
	20	60 15	58 36	56 53	55 10	53 28	51 46	50 04	48 23	46 41	44 59	43 18	41 39		20
	30	59 56	58 19	56 40	55 02	53 24	51 45	50 07	48 28	46 49	45 11	43 33	41 55		30
	40	59 31	57 58	56 24	54 50	53 15	51 39	50 04	48 28	46 53	45 17	43 41	42 07		40
	50	59 04	57 34	56 03	54 34	53 01	51 29	49 57	48 24	46 51	45 19	43 46	42 13		50
4	00	58 33	57 07	55 40	54 12	52 44	51 15	49 46	48 16	46 46	45 15	43 45	42 15	4	00
	10	58 00	56 38	55 13	53 48	52 23	50 57	49 31	48 03	46 36	45 08	43 40	42 13		10
	20	57 28	56 04	54 43	53 21	51 58	50 34	49 11	47 47	46 22	44 57	43 32	42 06		20
	30	56 46	55 29	54 10	52 51	51 31	50 10	48 49	47 27	46 04	44 41	43 19	41 56		30
	40	56 07	54 51	53 35	52 18	51 00	49 42	48 24	47 04	45 44	44 24	43 03	41 41		40
	50	55 25	54 12	52 57	51 43	50 28	49 11	47 55	46 38	45 21	44 02	42 43	41 24		50
5	00	54 41	53 29	52 17	51 06	49 52	48 38	47 24	46 10	44 54	43 37	42 21	41 04	5	00
	10	53 55	52 46	51 36	50 26	49 15	48 03	46 51	45 38	44 24	43 10	41 56	40 41		10
	20	53 06	52 00	50 52	49 44	48 34	47 25	46 16	45 05	43 53	42 41	41 28	40 15		20
	30	52 16	51 11	50 06	49 00	47 52	46 45	45 37	44 29	43 18	42 08	40 57	39 46		30
	40	51 25	50 21	49 17	48 14	47 08	46 03	44 56	43 50	42 42	41 33	40 25	39 16		40
	50	50 32	49 31	48 28	47 25	46 22	45 18	44 15	43 09	42 03	40 57	39 50	38 43		50
6	00	49 37	48 36	47 36	46 36	45 34	44 32	43 29	42 26	41 22	40 18	39 12	38 06	6	00
	10	48 49	47 47	46 47	45 47	44 44	43 43	42 43	41 41	40 38	39 36	38 33	37 29		10
	20	47 47	46 45	45 47	44 50	43 52	42 53	41 54	40 55	39 53	38 53	37 51	36 49		20
	30	46 41	45 46	44 51	43 55	42 58	42 01	41 04	40 05	39 07	38 07	37 07	36 07		30
	40	45 39	44 46	43 52	42 57	42 02	41 07	40 11	39 15	38 18	37 20	36 21	35 23		40
	50	44 36	43 44	42 51	41 59	41 05	40 11	39 17	38 22	37 26	36 31	35 34	34 37		50
7	00	43 31	42 41	41 50	40 59	40 06	39 13	38 22	37 28	36 34	35 40	34 45	33 50	7	00
	10	42 24	41 35	40 45	39 56	39 05	38 14	37 24	36 32	35 40	34 47	33 53	33 01		10
	20	41 17	40 29	39 40	38 52	38 03	37 14	36 25	35 35	34 46	33 56	33 07	32 10		20
	30	40 07	39 21	38 34	37 47	37 00	36 12	35 23	34 36	33 46	32 56	32 07	31 17		30
	40	38 55	38 10	37 25	36 39	35 54	35 07	34 21	33 34	32 47	31 59	31 11	30 22		40
	50	37 42	36 59	36 15	35 31	34 47	34 02	33 18	32 32	31 46	30 59	30 13	29 27		50
8	00	36 27	35 45	35 03	34 21	33 37	32 55	32 12	31 28	30 43	29 59	29 14	28 29	8	00
	10	35 11	34 31	33 51	33 10	32 28	31 46	31 04	30 22	29 39	28 57	28 14	27 30		10
	20	33 54	33 14	32 35	31 56	31 15	30 35	29 56	29 15	28 34	27 53	27 11	26 30		20
	30	32 34	31 57	31 18	30 41	30 00	29 24	28 46	28 06	27 28	26 47	26 08	25 27		30
	40	31 13	30 37	30 01	29 24	28 47	28 11	27 34	26 55	26 19	25 41	25 03	24 24		40
	50	29 51	29 17	28 42	28 06	27 32	26 57	26 21	25 45	25 09	24 33	23 57	23 20		50
9	00	28 26	27 53	27 21	26 47	26 14	25 40	25 07	24 33	23 59	23 25	22 49	22 14	9	00
	10	27 01	26 30	25 58	25 26	24 55	24 22	23 52	23 19	22 47	22 14	21 40	21 07		10
	20	25 35	25 04	24 35	24 05	23 35	23 04	22 35	22 04	21 33	21 01	20 30	20 00		20
	30	24 08	23 38	23 09	22 42	22 13	21 44	21 16	20 47	20 18	19 49	19 19	18 50		30
	40	22 36	22 10	21 43	21 17	20 50	20 23	19 57	19 30	19 02	18 35	18 07	17 40		40
	50	21 06	20 41	20 16	19 51	19 26	19 01	18 36	18 11	17 46	17 20	16 54	16 29		50
10	00	19 34	19 11	18 47	18 24	18 01	17 38	17 14	16 51	16 28	16 04	15 40	15 16	10	00
	10	18 01	17 38	17 17	16 56	16 35	16 14	15 52	15 31	15 09	14 47	14 25	14 03		10
	20	16 26	16 06	15 47	15 28	15 07	14 49	14 29	14 09	13 50	13 29	13 09	12 49		20
	30	14 50	14 33	14 15	13 58	13 39	13 22	13 05	12 47	12 29	12 11	11 52	11 34		30
	40	13 13	12 58	12 42	12 27	12 11	11 55	11 40	11 23	11 07	10 51	10 36	10 19		40
	50	11 37	11 23	11 09	10 55	10 41	10 27	10 13	10 00	9 45	9 31	9 17	9 03		50
11	00	9 58	9 46	9 34	9 23	9 11	8 59	8 47	8 35	8 23	8 11	7 58	7 46	11	00
	10	8 19	8 10	8 00	7 50	7 40	7 30	7 20	7 10	6 58	6 50	6 39	6 29		10
	20	6 41	6 33	6 26	6 17	6 09	6 01	5 52	5 45	5 36	5 28	5 20	5 13		20
	30	5 01	4 55	4 48	4 43	4 37	4 31	4 25	4 18	4 12	4 07	4 00	3 55		30
	40	3 20	3 16	3 12	3 08	3 04	3 00	2 57	2 53	2 49	2 45	2 40	2 35		40
	50	1 41	1 39	1 37	1 35	1 33	1 31	1 29	1 27	1 24	1 22	1 20	1 18		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 40°.				DECLINATION—SAME NAME AS—LATITUDE.								LATITUDE 40°.			
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.		
h.	m.	0	1	2	3	4	5	6	7	8	9	10	h.	m.	
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00	
	10	3 39	3 22	3 08	2 54	2 42	2 30	2 19	2 09	1 59	1 51	1 42		10	
	20	7 14	6 42	6 13	5 46	5 21	4 58	4 37	4 17	3 58	3 41	3 25		20	
	30	10 43	9 56	9 14	8 34	7 58	7 24	6 53	6 23	5 55	5 30	5 05		30	
	40	14 03	13 03	12 08	11 17	10 29	9 46	9 05	8 26	7 50	7 15	6 43		40	
	50	17 12	16 00	14 55	13 53	12 55	12 02	11 12	10 26	9 41	8 59	8 21		50	
1	00	20 08	18 47	17 31	16 20	15 15	14 13	13 15	12 20	11 28	10 40	9 54	1	00	
	10	22 50	21 22	19 58	18 40	17 26	16 17	15 12	14 10	13 11	12 16	11 24		10	
	20	25 20	23 44	22 14	20 49	19 29	18 14	17 02	15 54	14 49	13 49	12 51		20	
	30	27 34	25 55	24 20	22 48	21 24	20 03	18 45	17 33	16 23	15 16	14 12		30	
	40	29 36	27 52	26 14	24 39	23 09	21 44	20 23	19 05	17 51	16 39	15 31		40	
	50	31 23	29 38	27 56	26 19	24 46	23 17	21 53	20 30	19 12	17 57	16 45		50	
2	00	33 00	31 12	29 29	27 50	26 15	24 43	23 15	21 50	20 28	19 10	17 54	2	00	
	10	34 24	32 37	30 52	29 12	27 35	26 01	24 31	23 03	21 38	20 18	18 59		10	
	20	35 38	33 50	32 06	30 25	28 47	27 12	25 40	24 10	22 43	21 20	19 59		20	
	30	36 41	34 55	33 11	31 30	29 51	28 15	26 42	25 11	23 43	22 17	20 53		30	
	40	37 37	35 52	34 08	32 27	30 48	29 11	27 37	26 06	24 36	23 09	21 45		40	
	50	38 23	36 39	34 57	33 16	31 37	30 02	28 27	26 55	25 24	23 56	22 30		50	
3	00	39 02	37 20	35 39	33 59	32 21	30 45	29 11	27 39	26 08	24 39	23 12	3	00	
	10	39 33	37 53	36 13	34 35	32 59	31 23	29 49	28 16	26 46	25 16	23 49		10	
	20	39 59	38 20	36 42	35 06	33 30	31 56	30 22	28 50	27 19	25 50	24 22		20	
	30	40 18	38 42	37 05	35 30	33 56	32 23	30 50	29 18	27 48	26 18	24 51		30	
	40	40 31	38 58	37 23	35 50	34 17	32 44	31 13	29 42	28 12	26 43	25 15		40	
	50	40 40	39 08	37 35	36 04	34 32	33 01	31 31	30 01	28 32	27 04	25 37		50	
4	00	40 44	39 14	37 44	36 14	34 44	33 14	31 46	30 16	28 49	27 21	25 54	4	00	
	10	40 44	39 16	37 47	36 19	34 51	33 23	31 55	30 28	28 49	27 35	26 08		10	
	20	40 39	39 13	37 47	36 20	34 54	33 28	32 02	30 35	28 49	27 44	26 18		20	
	30	40 31	39 08	37 43	36 18	34 53	33 29	32 03	30 39	28 49	27 50	26 23		30	
	40	40 20	38 58	37 35	36 12	34 50	33 27	32 03	30 40	28 49	27 54	26 30		40	
	50	40 04	38 45	37 24	36 03	34 42	33 21	31 59	30 37	28 49	27 15	26 30		50	
5	00	39 46	38 29	37 10	35 51	34 32	33 11	31 52	30 31	29 10	27 50	26 29	5	00	
	10	39 25	38 09	36 52	35 36	34 18	32 59	31 42	30 23	29 03	27 44	26 24		10	
	20	39 01	37 47	36 32	35 17	34 01	32 45	31 28	30 11	28 53	27 35	26 18		20	
	30	38 35	37 23	36 10	34 56	33 42	32 27	31 12	29 56	28 40	27 24	26 07		30	
	40	38 06	36 55	35 43	34 32	33 20	32 07	30 54	29 40	28 26	27 11	25 55		40	
	50	37 34	36 25	35 16	34 06	32 56	31 44	30 33	29 20	28 08	26 55	25 42		50	
6	00	37 00	35 54	34 46	33 37	32 29	31 20	30 10	29 00	27 49	26 37	25 25	6	00	
	10	36 24	35 19	34 13	33 07	32 00	30 52	29 45	28 36	27 26	26 16	25 05		10	
	20	35 47	34 43	33 39	32 34	31 29	30 23	29 17	28 10	27 02	25 53	24 42		20	
	30	35 06	34 05	33 03	32 00	30 56	29 52	28 47	27 41	26 36	25 29	24 22		30	
	40	34 24	33 24	32 24	31 22	30 21	29 18	28 15	27 11	26 08	25 03	23 57		40	
	50	33 40	32 42	31 42	30 44	29 44	28 43	27 42	26 40	25 37	24 35	23 31		50	
7	00	32 54	31 58	31 00	30 02	29 05	28 06	27 07	26 06	25 05	24 04	23 03	7	00	
	10	32 06	31 11	30 16	29 20	28 23	27 26	26 29	25 31	24 31	23 32	22 32		10	
	20	31 16	30 23	29 30	28 36	27 42	26 46	25 50	24 54	23 56	22 59	22 00		20	
	30	30 26	29 35	28 43	27 50	26 57	26 04	25 10	24 15	23 19	22 24	21 27		30	
	40	29 33	28 43	27 53	27 03	26 11	25 20	24 27	23 35	22 41	21 47	20 53		40	
	50	28 39	27 51	27 02	26 14	25 25	24 34	23 44	22 53	22 01	21 09	20 16		50	
8	00	27 43	26 58	26 10	25 23	24 36	23 47	22 59	22 10	21 20	20 29	19 38	8	00	
	10	26 46	26 02	25 16	24 32	23 46	23 00	22 13	21 25	20 37	19 49	19 00		10	
	20	25 48	25 05	24 22	23 38	22 54	22 10	21 24	20 39	19 53	19 06	18 19		20	
	30	24 48	24 07	23 25	22 43	22 02	21 18	20 35	19 52	19 08	18 23	17 38		30	
	40	23 46	23 06	22 27	21 47	21 06	20 26	19 45	19 03	18 21	17 38	16 55		40	
	50	22 43	22 06	21 28	20 50	20 12	19 32	18 54	18 13	17 33	16 52	16 11		50	
9	00	21 39	21 04	20 28	19 52	19 15	18 37	18 01	17 23	16 44	16 06	15 27	9	00	
	10	20 34	20 01	19 26	18 52	18 17	17 42	17 17	16 30	15 54	15 18	14 41		10	
	20	19 28	18 56	18 23	17 51	17 18	16 46	16 12	15 38	15 04	14 29	13 54		20	
	30	18 21	17 51	17 19	16 50	16 19	15 47	15 16	14 44	14 12	13 39	13 06		30	
	40	17 12	16 43	16 15	15 47	15 17	14 48	14 19	13 49	13 19	12 49	12 17		40	
	50	16 02	15 37	15 10	14 43	14 16	13 49	13 22	12 53	12 25	11 57	11 28		50	
10	00	14 53	14 28	14 03	13 39	13 14	12 48	12 23	11 57	11 31	11 06	10 38	10	00	
	10	13 41	13 18	12 55	12 33	12 11	11 47	11 23	11 00	10 36	10 12	9 47		10	
	20	12 29	12 09	11 48	11 27	11 06	10 46	10 24	10 03	9 40	9 18	8 56		20	
	30	11 16	10 58	10 39	10 20	10 01	9 42	9 24	9 04	8 44	8 24	8 04		30	
	40	10 02	9 46	9 29	9 13	8 57	8 39	8 22	8 04	7 47	7 29	7 12		40	
	50	8 49	8 35	8 20	8 06	7 50	7 36	7 20	7 05	6 49	6 34	6 19		50	
11	00	7 34	7 21	7 09	6 57	6 44	6 31	6 18	6 06	5 52	5 39	5 25	11	00	
	10	6 19	6 09	5 59	5 48	5 38	5 26	5 16	5 05	4 54	4 43	4 31		10	
	20	5 04	4 56	4 47	4 39	4 30	4 22	4 14	4 04	3 55	3 46	3 37		20	
	30	3 48	3 41	3 36	3 30	3 23	3 17	3 10	3 04	2 57	2 50	2 43		30	
	40	2 32	2 28	2 23	2 20	2 15	2 12	2 07	2 02	1 57	1 53	1 49		40	
	50	1 16	1 14	1 12	1 10	1 08	1 06	1 04	1 02	0 59	0 57	0 54		50	
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00	

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 41°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 41°.	
Hour Angle.		24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	Hour Angle.	
h.	m.	o	o	o	o	o	o	o	o	o	o	o	o	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	177 13	177 50	177 22	177 51	178 15	178 35	178 46	178 49	178 39	178 13	177 24	176 03	1	00
	20	164 39	163 53	163 01	162 02	160 56	159 39	158 11	156 27	154 24	151 56	148 54	145 08		10
	30	157 27	156 23	155 12	153 51	152 22	150 39	148 43	146 28	143 53	140 51	137 18	133 04		20
	40	150 45	149 27	148 01	146 25	144 39	142 40	140 28	137 58	135 08	131 56	128 17	124 07		30
	50	144 36	143 08	141 32	139 47	137 52	135 44	133 25	130 49	127 58	124 48	121 16	117 22		40
1	00	139 00	137 27	135 45	133 55	131 56	129 45	127 24	124 51	122 04	119 01	115 43	112 09	1	00
	10	133 56	132 19	130 35	128 44	126 44	124 35	122 17	119 49	117 08	114 17	111 12	107 55		10
	20	129 22	127 44	125 00	122 09	119 11	116 05	112 52	110 29	107 22	104 17	101 27	98 26		20
	30	125 13	123 35	121 53	119 04	116 18	113 25	110 36	107 42	104 33	101 51	98 54	95 54		30
	40	121 28	119 52	118 11	115 26	112 35	109 39	106 43	103 48	100 43	97 51	94 54	91 54		40
	50	118 03	116 29	114 52	113 09	111 23	109 30	107 35	105 33	103 27	101 15	98 58	96 36		50
2	00	114 54	113 23	111 48	110 10	108 27	106 41	104 50	102 55	100 56	98 52	96 44	94 32	2	00
	10	112 01	110 33	109 01	107 26	105 47	104 05	102 21	100 31	98 39	96 43	94 42	92 39		10
	20	109 21	107 56	106 27	104 56	103 22	101 44	100 04	98 20	96 33	94 43	92 50	90 54		20
	30	106 51	105 29	104 03	102 35	101 03	99 31	97 56	96 16	94 35	92 51	91 04	89 15		30
	40	104 32	103 12	101 49	100 24	98 58	97 28	95 56	94 22	92 45	91 07	89 25	87 41		40
	50	102 20	101 03	99 42	98 21	96 57	95 32	94 04	92 34	90 59	89 28	87 52	86 13		50
3	00	100 15	99 00	97 43	96 24	95 04	93 41	92 17	90 51	89 22	87 53	86 21	84 48	3	00
	10	98 16	97 04	95 49	94 33	93 15	91 56	90 35	89 12	87 47	86 22	84 54	83 24		10
	20	96 23	95 12	94 00	92 47	91 32	90 15	88 57	87 37	86 16	84 54	83 30	82 04		20
	30	94 34	93 26	92 16	91 04	89 52	88 37	87 23	86 05	84 48	83 29	82 08	80 45		30
	40	92 49	91 42	90 34	89 25	88 15	87 03	85 51	84 36	83 22	82 06	80 47	79 28		40
	50	91 07	90 03	88 56	87 49	86 41	85 31	84 22	83 10	81 57	80 44	79 29	78 13		50
4	00	89 28	88 25	87 21	86 16	85 10	84 03	82 55	81 45	80 36	79 24	78 12	76 59	4	00
	10	87 52	86 51	85 48	84 44	83 40	82 35	81 29	80 22	79 14	78 04	76 55	75 44		10
	20	86 18	85 18	84 16	83 15	82 12	81 09	80 05	79 00	77 54	76 47	75 39	74 30		20
	30	84 45	83 46	82 47	81 46	80 46	79 44	78 42	77 38	76 35	75 30	74 24	73 18		30
	40	83 13	82 16	81 18	80 19	79 21	78 21	77 20	76 18	75 16	74 13	73 09	72 04		40
	50	81 44	80 47	79 51	78 53	77 56	76 57	75 57	74 58	73 57	72 57	71 54	70 52		50
5	00	80 14	79 19	78 24	77 28	76 31	75 34	74 36	73 37	72 39	71 39	70 39	69 38	5	00
	10	78 46	77 52	76 58	75 08	74 12	73 15	72 18	71 21	70 22	69 23	68 24	67 25		10
	20	77 18	76 25	75 32	74 38	73 44	72 50	71 54	70 59	69 64	68 68	67 71	66 75		20
	30	75 50	74 58	74 06	73 13	72 20	71 27	70 33	69 38	68 44	67 48	66 53	65 57		30
	40	74 22	73 31	72 40	71 49	70 57	70 04	69 11	68 18	67 25	66 31	65 36	64 41		40
	50	73 03	72 04	71 14	70 24	69 33	68 42	67 50	66 58	66 05	65 12	64 20	63 25		50
6	00	71 25	70 38	69 48	68 58	68 08	67 18	66 27	65 36	64 45	63 54	63 03	62 09	6	00
	10	69 57	69 09	68 20	67 32	66 43	65 54	65 04	64 14	63 24	62 33	61 43	60 51		10
	20	68 27	67 41	66 53	66 05	65 18	64 29	63 40	62 50	62 01	61 11	60 24	59 33		20
	30	66 57	66 12	65 25	64 38	63 51	63 03	62 16	61 28	60 40	59 51	59 03	58 14		30
	40	65 27	64 42	63 55	63 09	62 23	61 37	60 49	60 03	59 16	58 29	57 41	56 53		40
	50	63 54	63 10	62 25	61 40	60 55	60 09	59 23	58 37	57 51	57 05	56 18	55 31		50
7	00	62 22	61 37	60 53	60 09	59 25	58 40	57 55	57 10	56 25	55 39	54 55	54 08	7	00
	10	60 47	60 04	59 20	58 37	57 53	57 09	56 25	55 41	54 58	54 13	53 29	52 44		10
	20	59 12	58 29	57 46	57 04	56 21	55 37	54 55	54 12	53 29	52 45	52 02	51 18		20
	30	57 35	56 53	56 10	55 29	54 47	54 04	53 22	52 40	51 58	51 15	50 34	49 51		30
	40	55 55	55 14	54 33	53 52	53 11	52 30	51 48	51 08	50 26	49 44	49 03	48 22		40
	50	54 14	53 34	52 54	52 14	51 34	50 53	50 13	49 32	48 52	48 12	47 32	46 51		50
8	00	52 31	51 51	51 13	50 33	49 54	49 15	48 35	47 55	47 16	46 37	45 59	45 19	8	00
	10	50 47	50 08	49 30	48 51	48 13	47 34	46 56	46 18	45 40	45 02	44 24	43 45		10
	20	49 00	48 22	47 45	47 06	46 29	45 52	45 15	44 38	44 01	43 23	42 47	42 10		20
	30	47 10	46 34	45 57	45 21	44 45	44 08	43 31	42 55	42 20	41 44	41 08	40 33		30
	40	45 19	44 44	44 07	43 32	42 57	42 21	41 47	41 12	40 37	40 02	39 27	38 52		40
	50	43 25	42 51	42 16	41 42	41 08	40 34	39 59	39 26	38 53	38 18	37 45	37 11		50
9	00	41 28	40 55	40 22	39 48	39 15	38 42	38 10	37 37	37 05	36 32	36 01	35 29	9	00
	10	39 30	38 58	38 25	37 53	37 21	36 49	36 18	35 47	35 16	34 45	34 14	33 44		10
	20	37 28	36 57	36 27	35 56	35 26	34 55	34 24	33 53	33 25	32 55	32 26	31 57		20
	30	35 24	34 54	34 25	33 55	33 26	32 58	32 29	32 01	31 32	31 04	30 36	30 07		30
	40	33 18	32 50	32 22	31 53	31 25	30 58	30 31	30 04	29 37	29 10	28 43	28 17		40
	50	31 08	30 41	30 15	29 48	29 23	28 57	28 31	28 05	27 40	27 15	26 50	26 25		50
10	00	29 56	29 32	29 06	28 41	28 17	27 52	27 28	27 05	26 42	26 19	25 56	25 33	10	00
	10	28 42	28 19	27 56	27 33	27 10	26 46	26 24	26 02	25 40	25 17	24 54	24 31		10
	20	27 07	26 45	26 22	26 00	25 38	25 16	24 54	24 32	24 10	23 48	23 27	23 05		20
	30	25 45	25 24	25 02	24 40	24 18	23 56	23 34	23 12	22 50	22 28	22 07	21 45		30
	40	24 07	23 47	23 27	23 06	22 45	22 24	22 03	21 42	21 21	21 00	20 39	20 18		40
	50	22 22	22 03	21 44	21 24	21 04	20 44	20 24	20 04	19 43	19 23	19 03	18 43		50
11	00	20 36	20 18	20 00	19 42	19 24	19 06	18 48	18 30	18 12	17 54	17 36	17 18	11	00
	10	19 00	18 43	18 26	18 09	17 52	17 35	17 18	17 01	16 44	16 27	16 10	15 53		10
	20	17 32	17 16	17 00	16 44	16 28	16 12	15 56	15 40	15 24	15 08	14 52	14 36		20
	30	16 02	15 47	15 32	15 17	15 02	14 47	14 32	14 17	14 02	13 47	13 32	13 17		30
	40	14 32	14 18	14 04	13 50	13 36	13 22	13 08	12 54	12 40	12 26	12 12	11 58		40
	50	13 02	12 49	12 36	12 23	12 10	11 57	11 44	11 31	11 18	11 05	10 52	10 39		50
12	00	11 32	11 20	11 08	10 56	10 44	10 32	10 20	10 08	9 56	9 44	9 32	9 20	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 41°.		DECLINATION—SAME NAME AS—LATITUDE.														LATITUDE 41°.	
Hour Angle.		26°	27°	28°	29°	30°	31°	32°	33°	34°	35°	36°	37°	38°	39°	Hour Angle.	
h. m.		o. /	o. /	o. /	o. /	o. /	o. /	o. /	o. /	o. /	o. /	o. /	o. /	o. /	o. /	h. m.	
0 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0 00	00
0 10	157 50	153 18	146 27	135 26	116 56	89 11	61 04	42 04	30 43	23 43	19 05	15 50	13 05	10 21	07 36	0 10	10
0 20	140 23	134 13	126 16	115 56	103 07	86 22	73 25	60 03	49 12	40 45	34 16	29 14	24 53	21 11	17 40	0 20	20
0 30	128 03	122 03	114 59	106 45	97 30	86 43	77 26	67 46	59 01	51 22	44 53	39 24	34 03	29 03	24 03	0 30	30
0 40	119 23	114 01	108 00	101 19	94 13	86 43	79 06	71 37	64 32	57 58	52 03	46 47	41 47	36 47	31 47	0 40	40
0 50	113 05	108 21	103 14	97 43	91 55	85 53	79 47	73 42	67 48	62 11	56 55	52 03	47 03	42 03	37 03	0 50	50
1 00	108 16	104 06	99 40	94 59	90 06	85 04	79 58	74 51	69 49	64 56	60 16	55 50	51 21	46 47	42 03	1 00	00
1 10	104 25	100 44	96 50	92 46	88 33	84 14	79 51	75 26	71 02	66 46	62 37	58 35	54 31	50 26	46 21	1 10	10
1 20	101 17	97 57	94 29	90 54	87 11	83 24	79 33	75 41	71 49	67 59	64 14	60 35	56 51	53 06	49 21	1 20	20
1 30	98 35	95 35	92 28	89 15	85 56	82 34	79 08	75 40	72 14	68 47	65 23	62 02	58 37	55 06	51 31	1 30	30
1 40	96 15	93 30	90 40	87 45	84 46	81 43	78 38	75 31	72 23	69 15	66 08	63 04	59 51	56 33	53 14	1 40	40
1 50	94 10	91 38	89 03	86 23	83 39	80 53	78 03	75 13	72 22	69 29	66 37	63 46	60 53	57 59	55 03	1 50	50
2 00	92 16	89 56	87 32	85 05	82 35	80 02	77 27	74 49	72 11	69 32	66 53	64 15	61 31	58 47	56 03	2 00	00
2 10	90 32	88 21	86 08	83 51	81 32	79 11	76 48	74 22	71 54	69 27	66 57	64 31	62 00	59 26	56 51	2 10	10
2 20	88 55	86 53	84 47	82 40	80 31	78 19	76 05	73 48	71 33	69 15	66 57	64 37	62 14	59 47	57 21	2 20	20
2 30	87 23	85 28	83 31	81 31	79 30	77 27	75 21	73 15	71 07	68 57	66 47	64 37	62 14	59 47	57 21	2 30	30
2 40	85 57	84 07	82 17	80 25	78 31	76 34	74 36	72 37	70 37	68 35	66 32	64 29	62 14	59 47	57 21	2 40	40
2 50	84 32	82 49	81 05	79 21	77 32	75 41	73 50	71 57	70 04	68 09	66 13	64 16	62 14	59 47	57 21	2 50	50
3 00	83 12	81 34	79 55	78 14	76 32	74 48	73 02	71 15	69 28	67 39	65 49	63 59	62 06	59 31	56 56	3 00	00
3 10	81 53	80 21	78 46	77 10	75 33	73 54	72 14	70 31	68 49	67 05	65 21	63 36	61 51	59 31	56 56	3 10	10
3 20	80 37	79 08	77 36	76 07	74 33	72 59	71 24	69 47	68 09	66 30	64 50	63 10	61 29	59 31	56 56	3 20	20
3 30	79 22	77 57	76 31	75 03	73 35	72 04	70 33	69 00	67 27	65 52	64 17	62 41	60 59	59 31	56 56	3 30	30
3 40	78 09	76 47	75 24	74 00	72 35	71 09	69 42	68 12	66 43	65 12	63 41	62 09	60 34	59 31	56 56	3 40	40
3 50	76 56	75 37	74 17	72 57	71 36	70 13	68 48	67 23	65 57	64 30	63 03	61 34	60 06	59 31	56 56	3 50	50
4 00	75 44	74 28	73 12	71 54	70 35	69 16	67 55	66 33	65 10	63 46	62 22	60 56	59 31	56 56	54 31	4 00	00
4 10	74 32	73 19	72 05	70 51	69 35	68 18	67 00	65 41	64 21	63 00	61 79	60 56	59 31	56 56	54 31	4 10	10
4 20	73 21	72 10	70 59	69 47	68 33	67 19	66 04	64 48	63 30	62 13	60 54	59 35	58 14	56 56	54 31	4 20	20
4 30	72 10	71 02	69 52	68 42	67 32	66 20	65 07	63 53	62 39	61 24	60 08	58 52	57 35	56 14	54 31	4 30	30
4 40	70 59	69 53	68 45	67 38	66 29	65 20	64 09	62 59	61 47	60 34	59 21	58 06	56 56	55 35	54 31	4 40	40
4 50	69 48	68 43	67 39	66 33	65 27	64 19	63 11	62 02	60 53	59 41	58 31	57 19	56 06	54 31	52 56	4 50	50
5 00	68 36	67 33	66 30	65 26	64 22	63 17	62 11	61 04	59 56	58 48	57 39	56 29	55 14	54 31	52 56	5 00	00
5 10	67 24	66 23	65 22	64 20	63 17	62 14	61 10	60 05	59 00	57 53	56 47	55 39	54 31	52 56	51 31	5 10	10
5 20	66 12	65 13	64 13	63 12	62 12	61 10	60 08	59 05	58 02	56 57	55 52	54 47	53 35	52 56	51 31	5 20	20
5 30	64 59	64 01	63 03	62 04	61 05	60 05	59 04	58 03	57 01	55 59	54 57	53 53	52 56	51 31	50 06	5 30	30
5 40	63 46	62 48	61 52	60 55	59 58	58 59	58 00	57 01	56 01	55 00	54 00	53 00	52 00	51 00	50 00	5 40	40
5 50	62 31	61 36	60 42	59 46	58 49	57 53	56 55	55 57	54 59	54 00	53 00	52 00	51 00	50 00	49 00	5 50	50
6 00	61 16	60 22	59 29	58 34	57 39	56 44	55 48	54 51	53 55	52 57	52 00	51 01	50 01	49 00	48 00	6 00	00
6 10	59 59	59 07	58 15	57 23	56 29	55 35	54 40	53 45	52 50	51 54	50 57	50 01	49 00	48 00	47 00	6 10	10
6 20	58 42	57 51	57 01	56 09	55 17	54 24	53 31	52 38	51 44	50 50	49 55	49 00	48 00	47 00	46 00	6 20	20
6 30	57 25	56 34	55 44	54 54	54 04	53 12	52 21	51 28	50 36	49 43	48 50	47 57	47 00	46 00	45 00	6 30	30
6 40	56 05	55 16	54 28	53 38	52 49	51 59	51 09	50 17	49 27	48 35	47 44	46 51	46 00	45 00	44 00	6 40	40
6 50	54 45	53 57	53 10	52 21	51 33	50 44	49 55	49 06	48 16	47 26	46 35	45 45	44 54	44 00	43 00	6 50	50
7 00	53 23	52 35	51 49	51 03	50 16	49 29	48 40	47 52	47 05	46 15	45 26	44 36	43 47	42 57	42 06	7 00	00
7 10	52 09	51 23	50 38	49 53	49 07	48 22	47 37	46 52	46 07	45 21	44 36	43 51	43 06	42 21	41 36	7 10	10
7 20	50 54	49 59	49 06	48 22	47 37	46 52	46 07	45 21	44 36	43 51	43 06	42 21	41 36	40 51	40 06	7 20	20
7 30	49 08	48 25	47 42	46 58	46 15	45 32	44 47	44 03	43 18	42 34	41 49	41 04	40 19	39 34	38 49	7 30	30
7 40	47 40	46 58	46 16	45 34	44 52	44 10	43 27	42 44	42 01	41 17	40 34	39 50	39 06	38 21	37 36	7 40	40
7 50	46 11	45 30	44 50	44 09	43 28	42 46	42 05	41 23	40 42	39 59	39 18	38 34	37 51	37 08	36 25	7 50	50
8 00	44 40	44 00	43 20	42 40	42 01	41 21	40 41	40 00	39 20	38 39	37 59	37 17	36 36	35 55	35 14	8 00	00
8 10	43 07	42 29	41 50	41 12	40 34	39 55	39 16	38 37	37 57	37 18	36 38	35 59	35 19	34 39	33 59	8 10	10
8 20	41 33	40 55	40 19	39 41	39 03	38 26	37 48	37 11	36 33	35 55	35 17	34 39	33 59	33 19	32 39	8 20	20
8 30	39 59	39 20	38 45	38 08	37 33	36 56	36 19	35 43	35 07	34 30	33 53	33 17	32 39	31 59	31 19	8 30	30
8 40	38 18	37 43	37 08	36 34	35 59	35 25	34 49	34 14	33 39	33 05	32 30	31 55	31 19	30 44	30 09	8 40	40
8 50	36 38	36 05	35 31	34 57	34 24	33 51	33 17	32 43	32 10	31 37	31 03	30 29	29 54	29 19	28 44	8 50	50
9 00	34 56	34 24	33 52	33 19	32 48	32 16	31 43	31 11	30 40	30 07	29 35	29 03	28 31	27 59	27 27	9 00	00
9 10	33 13	32 42	32 11	31 40	31 10	30 40	30 08	29 37	29 07	28 37	28 06	27 35	27 04	26 33	26 02	9 10	10
9 20	31 28	30 58	30 28	29 58	29 28	28 58	28 28	27 58	27 28	26 58	26 28	25 58	25 28	24 58	24 28	9 20	20
9 30	29 40	29 12	28 45	28 17	27 50	27 22	26 53	26 27	25 58	25 29	24 59	24 29	23 59	23 29	22 59	9 30	30
9 40	27 50	27 25	26 59	26 32	26 07	25 40	25 14	24 49	24 22	23 56	23 30	23 04	22 38	22 12	21 46	9 40	40
9 50	26 00	25 35	25 11	24 46	24 22	23 57	23 33	23 08	22 44	22 20	21 55	21 31	21 06	20 42	20 17	9 50	50
10 00	24 07	23 44	23 22	22 58	22 36	22 13	21 50	21 27	21 05	20 42	20 20	19 58	19 36	19 14	18 52	10 00	00
10 10	22 14	21 52	21 31	21 09	20 49	20 27	20 06	19 46	19 24	19 03	18 42	18 22	18 01	17 40	17 19	10 10	10
10 20	20 17	19 59	19 39	19 19	19 00	18 40	18 21	18 02	17 43	17 24	17 04	16 45	16 26	16 07	15 48	10 20	20
10 30	18 21	18 03	17 45	17 27	17 10	16 52	16 35	16 17	16 00	15 43	15 25	15 08	14 50	14 33	14 15	10 30	30
10 40	16 22	16 05	15 50	15 34	15 18	15 03	14 47	14 32	14 15	14 00	13 45	13 29	13 14	12 58	12 43	10 40	40</

AZIMUTH OR TRUE BEARING.

LATITUDE 41°.		DECLINATION—SAME NAME AS—LATITUDE												LATITUDE 41°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h. m.	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	h. m.	0 00
10	13 25	11 35	10 08	8 58	7 59	7 11	6 30	5 54	5 22	4 55	4 31	4 09	3 49	10	10
20	25 15	22 05	19 32	17 23	15 35	14 04	12 45	11 37	10 37	9 44	8 57	8 14	7 34	20	20
30	34 48	30 56	27 40	24 52	22 26	20 23	18 35	16 53	15 34	14 18	13 11	12 10	11 14	30	30
40	42 06	38 01	34 26	31 16	28 30	26 02	23 51	21 55	20 10	18 36	17 11	15 54	14 40	40	40
50	47 35	43 33	39 54	36 36	33 37	30 57	28 31	26 20	24 20	22 32	20 53	19 23	17 54	50	50
1 00	51 39	47 49	44 15	40 57	37 54	35 08	32 34	30 14	28 04	26 05	24 16	22 35	20 54	1 00	00
10	54 45	51 07	47 42	44 28	41 27	38 40	36 03	33 38	31 22	29 16	27 19	25 30	23 40	10	10
20	57 03	53 39	50 25	47 19	44 23	41 37	39 00	36 33	34 15	32 05	30 03	28 09	26 14	20	20
30	58 46	55 35	52 32	49 34	46 45	44 04	41 29	39 03	36 44	34 32	32 27	30 30	28 32	30	30
40	60 02	57 05	54 12	51 24	48 41	46 05	43 34	41 11	38 53	36 40	34 36	32 34	30 34	40	40
50	61 08	58 13	55 29	52 50	50 14	47 44	45 19	42 57	40 42	38 30	36 25	34 24	32 24	50	50
2 00	61 38	59 02	56 29	53 58	51 29	49 05	46 44	44 27	42 14	40 05	38 01	36 01	34 01	2 00	00
10	62 04	59 38	57 13	54 50	52 20	50 10	47 54	45 42	43 32	41 26	39 23	37 24	35 24	10	10
20	62 19	60 02	57 44	55 28	53 14	51 02	48 51	46 42	44 36	42 33	40 33	38 35	36 35	20	20
30	62 25	60 16	58 06	55 57	53 45	51 41	49 36	47 31	45 30	43 29	41 32	39 37	37 37	30	30
40	62 26	60 22	58 18	56 15	54 13	52 11	50 10	48 10	46 12	44 16	42 21	40 28	38 28	40	40
50	62 19	60 21	58 24	56 26	54 29	52 32	50 35	48 40	46 46	44 53	43 00	41 11	39 18	50	50
3 00	62 06	60 14	58 23	56 30	54 37	52 46	50 53	49 02	47 12	45 22	43 33	41 45	39 52	3 00	00
10	61 49	60 02	58 16	56 27	54 39	52 52	51 04	49 17	47 30	45 44	43 58	42 13	40 24	10	10
20	61 28	59 45	58 03	56 19	54 36	52 52	51 07	49 25	47 42	45 58	44 16	42 34	40 48	20	20
30	61 03	59 25	57 47	56 08	54 29	52 48	51 06	49 28	47 48	46 07	44 28	42 48	40 63	30	30
40	60 35	59 01	57 27	55 51	54 16	52 39	51 02	49 25	47 49	46 12	44 34	42 57	41 14	40	40
50	60 04	58 33	57 02	55 30	53 58	52 26	50 52	49 18	47 44	46 10	44 36	43 02	41 24	50	50
4 00	59 30	58 03	56 36	55 06	53 37	52 08	50 38	49 07	47 36	46 04	44 33	43 02	41 30	4 00	00
10	58 53	57 29	56 05	54 39	53 14	51 47	50 19	48 52	47 23	45 55	44 25	42 56	41 24	10	10
20	58 15	56 54	55 32	54 09	52 46	51 22	49 58	48 33	47 07	45 41	44 15	42 48	41 19	20	20
30	57 34	56 15	54 56	53 36	52 16	50 55	49 33	48 10	46 48	45 22	44 00	42 35	41 08	30	30
40	56 51	55 35	54 19	53 02	51 43	50 25	49 05	47 45	46 24	45 04	43 41	42 20	40 54	40	40
50	56 06	54 52	53 39	52 23	51 08	49 52	48 35	47 17	45 59	44 40	43 21	42 00	40 39	50	50
5 00	55 19	54 08	52 56	51 43	50 30	49 16	48 02	46 45	45 30	44 14	42 57	41 39	40 20	5 00	00
10	54 30	53 22	52 12	51 01	49 50	48 38	47 26	46 13	45 00	43 45	42 30	41 14	40 00	10	10
20	53 40	52 33	51 26	50 17	49 07	47 58	46 48	45 37	44 25	43 13	42 00	40 46	39 34	20	20
30	52 47	51 43	50 38	49 24	48 16	47 07	46 07	45 04	44 00	42 59	41 58	40 46	39 34	30	30
40	51 53	50 50	49 47	48 42	47 38	46 31	45 24	44 18	43 10	42 02	41 00	39 53	38 46	40	40
50	50 58	49 58	48 56	47 53	46 49	45 46	44 41	43 37	42 30	41 23	40 16	39 08	38 01	50	50
6 00	50 01	49 02	48 02	47 01	45 59	44 57	43 55	42 52	41 47	40 42	39 38	38 31	37 24	6 00	00
10	49 03	48 05	47 07	46 07	45 07	44 07	43 06	42 05	41 02	40 00	38 97	37 52	36 46	10	10
20	48 03	47 07	46 10	45 11	44 15	43 15	42 16	41 16	40 16	39 15	38 14	37 11	36 07	20	20
30	47 01	46 06	45 13	44 15	43 19	42 22	41 24	40 25	39 28	38 29	37 29	36 27	35 24	30	30
40	45 57	45 03	44 11	43 16	42 21	41 26	40 31	39 34	38 37	37 39	36 42	35 42	34 40	40	40
50	44 53	44 01	43 09	42 16	41 23	40 29	39 35	38 41	37 45	36 48	35 53	34 56	33 56	50	50
7 00	43 46	42 56	42 06	41 15	40 23	39 30	38 38	37 45	36 51	35 57	35 03	34 06	33 16	7 00	00
10	42 38	41 50	41 01	40 11	39 20	38 30	37 39	36 48	35 56	35 04	34 10	33 17	32 24	10	10
20	41 29	40 42	39 54	39 06	38 17	37 29	36 39	35 49	34 59	34 08	33 17	32 24	31 31	20	20
30	40 20	39 32	38 45	38 00	37 12	36 25	35 37	34 48	34 00	33 11	32 21	31 31	30 38	30	30
40	39 06	38 21	37 36	36 51	36 05	35 19	34 33	33 47	33 00	32 13	31 24	30 35	29 44	40	40
50	37 52	37 09	36 26	35 41	34 57	34 13	33 29	32 43	31 58	31 12	30 25	29 38	28 49	50	50
8 00	36 35	35 54	35 12	34 29	33 47	33 05	32 22	31 38	30 54	30 10	29 25	28 39	27 52	8 00	00
10	35 19	34 38	33 58	33 17	32 36	31 56	31 14	30 32	29 49	29 06	28 24	27 40	26 54	10	10
20	34 00	33 22	32 43	32 03	31 23	30 44	30 04	29 21	28 43	28 02	27 21	26 39	25 55	20	20
30	32 40	32 03	31 25	30 47	30 09	29 32	28 53	28 14	27 35	26 57	26 16	25 36	24 53	30	30
40	31 18	30 42	30 07	29 30	28 54	28 20	27 41	27 04	26 26	25 49	25 10	24 33	23 53	40	40
50	29 54	29 21	28 47	28 11	27 38	27 02	26 27	25 52	25 16	24 40	24 04	23 28	22 51	50	50
9 00	28 30	27 58	27 25	26 51	26 19	25 46	25 12	24 38	24 04	23 30	22 56	22 21	21 44	9 00	00
10	27 04	26 33	26 02	25 30	24 59	24 27	23 55	23 24	22 51	22 19	21 47	21 14	20 40	10	10
20	25 37	25 08	24 38	24 08	23 38	23 08	22 39	22 08	21 38	21 07	20 36	20 04	19 31	20	20
30	24 08	23 40	23 12	22 45	22 19	21 48	21 20	20 51	20 23	19 54	19 25	18 55	18 24	30	30
40	22 38	22 12	21 46	21 19	20 53	20 26	20 00	19 33	19 06	18 39	18 12	17 44	17 14	40	40
50	21 06	20 42	20 18	19 53	19 28	19 03	18 39	18 14	17 49	17 24	16 59	16 33	16 06	50	50
10 00	19 34	19 12	18 49	18 26	18 03	17 40	17 17	16 54	16 31	16 07	15 44	15 19	14 56	10 00	00
10	18 01	17 40	17 19	16 57	16 37	16 15	15 54	15 33	15 12	14 50	14 28	14 06	13 44	10	10
20	16 26	16 07	15 47	15 28	15 09	14 50	14 30	14 11	13 51	13 31	13 12	12 52	12 31	20	20
30	14 40	14 32	14 17	13 58	13 41	13 23	13 06	12 49	12 30	12 13	11 55	11 37	11 19	30	30
40	13 14	12 58	12 43	12 27	12 12	11 56	11 41	11 25	11 08	10 52	10 37	10 21	10 04	40	40
50	11 36	11 23	11 10	10 56	10 42	10 28	10 14	10 01	9 46	9 33	9 19	9 04	8 49	50	50
11 00	9 58	9 46	9 36	9 23	9 11	9 00	8 48	8 36	8 24	8 12	8 00	7 48	7 36	11 00	00
10	8 20	8 10	8 00	7 50	7 40	7 30	7 21	7 11	7 01	6 51	6 40	6 30	6 19	10	10
20	6 40	6 33	6 24	6 16	6 09	6 01	5 54	5 46	5 37	5 29	5 22	5 13	5 03	20	20
30	5 01	4 55	4 49	4 43	4 37	4 32	4 25	4 19	4 12	4 07	4 01	3 55	3 48	30	30
40	3 20	3 16	3 13	3 09	3 05	3 01	2 57	2 53	2 49	2 45	2 41	2 37	2 33	40	40
50	1 41	1 39	1 36	1 34	1 33	1 31	1 28	1 26	1 25	1 22	1 21	1 19	1 17	50	50
12 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12 00	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East, and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 42°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 43°.	
Hour Angle.		36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	180 00	0	00
	10	161 16	158 06	153 36	146 50	135 51	117 16	89 10	60 41	41 35	30 18	23 21	18 45	1	00
	20	145 28	140 43	134 37	126 38	116 17	103 17	88 20	73 09	59 38	48 43	40 15	33 46		10
	30	133 25	126 24	122 23	115 17	106 58	97 36	87 29	77 14	67 25	58 35	50 53	44 21		20
	40	124 26	119 41	114 16	108 11	101 31	94 16	86 39	78 55	71 19	64 08	57 31	51 32		30
	50	117 39	113 16	108 33	103 23	97 48	91 55	85 49	79 36	73 26	67 27	61 46	56 25		40
1	00	112 21	108 26	104 15	99 46	95 02	90 04	84 58	79 47	74 35	69 29	64 32	59 48	1	00
	10	106 06	104 54	100 50	96 53	92 47	88 31	84 07	79 40	75 11	70 45	66 25	62 10		10
	20	104 34	101 23	98 01	94 31	90 52	87 07	83 16	79 22	75 27	71 31	67 38	63 49		20
	30	101 33	98 39	95 36	92 27	89 12	85 50	82 25	78 57	75 25	71 55	68 26	64 58		30
	40	98 57	96 16	93 30	90 35	87 40	84 39	81 34	78 26	75 15	72 04	68 54	65 44		40
	50	96 37	94 09	91 36	88 59	86 17	83 32	80 42	77 51	74 59	72 03	69 08	66 14		50
2	00	94 31	92 14	89 52	87 27	84 58	82 25	79 50	77 12	74 33	71 53	69 11	66 30	2	00
	10	92 37	90 25	88 16	86 01	83 42	81 21	78 58	76 32	74 04	71 36	69 06	66 36		10
	20	90 49	88 49	86 45	84 40	82 31	80 19	78 05	75 50	73 34	71 13	68 54	66 33		20
	30	89 08	87 15	85 20	83 21	81 21	79 19	77 12	75 05	72 57	70 47	68 33	66 23		30
	40	87 34	85 47	83 57	82 07	80 12	78 16	76 19	74 19	72 18	70 16	68 13	66 08		40
	50	86 04	84 22	82 38	80 53	79 05	77 16	75 25	73 32	71 38	69 43	67 45	65 48		50
3	00	84 36	83 00	81 22	79 42	78 00	76 16	74 31	72 44	70 55	69 06	67 15	65 24	3	00
	10	83 12	81 40	80 07	78 31	76 54	75 16	73 36	71 55	70 11	68 28	66 41	64 55		10
	20	81 51	80 23	78 53	77 22	75 49	74 16	72 40	71 04	69 25	67 47	66 06	64 25		20
	30	80 31	79 06	77 41	76 14	74 45	73 15	71 44	70 11	68 38	67 04	65 28	63 51		30
	40	79 12	77 52	76 29	75 06	73 41	72 15	70 48	69 19	67 49	66 19	64 47	63 14		40
	50	77 56	76 38	75 19	73 58	72 37	71 14	69 50	68 26	67 00	65 32	64 04	62 35		50
4	00	76 39	75 25	74 09	72 52	71 33	70 13	68 53	67 31	66 08	64 45	63 20	61 54	4	00
	10	75 24	74 11	72 55	71 44	70 28	69 12	67 54	66 35	65 16	63 55	62 34	61 11		10
	20	74 09	72 59	71 48	70 37	69 24	68 10	66 55	65 39	64 22	63 05	61 46	60 26		20
	30	72 55	71 47	70 36	69 24	68 12	67 07	65 55	64 41	63 27	62 13	60 56	59 39		30
	40	71 41	70 35	69 28	68 22	67 13	66 04	64 54	63 43	62 31	61 19	60 05	58 50		40
	50	70 27	69 24	68 18	67 13	66 08	65 00	63 52	62 44	61 34	60 24	59 13	58 01		50
5	00	69 12	68 11	67 08	66 05	65 00	63 55	62 49	61 43	60 35	59 27	58 18	57 09	5	00
	10	67 58	66 58	65 57	64 55	63 53	62 50	61 46	60 41	59 36	58 31	57 22	56 16		10
	20	66 45	65 44	64 45	63 46	62 45	61 44	60 40	59 39	58 35	57 31	56 26	55 21		20
	30	65 32	64 34	63 37	62 38	61 36	60 36	59 36	58 35	57 34	56 32	55 28	54 25		30
	40	64 19	63 23	62 28	61 33	60 36	59 38	58 39	57 39	56 38	55 36	54 38	53 35		40
	50	63 05	62 02	61 06	60 12	59 15	58 19	57 22	56 25	55 25	54 27	53 28	52 28		50
6	00	61 58	60 45	59 51	58 56	58 03	57 08	56 13	55 16	54 21	53 23	52 25	51 26	6	00
	10	60 49	59 28	58 36	57 43	56 50	55 57	55 03	54 08	53 13	52 20	51 21	50 25		10
	20	59 01	57 51	57 19	56 28	55 37	54 45	53 52	52 59	52 05	51 11	50 16	49 22		20
	30	57 41	56 52	56 01	55 13	54 22	53 30	52 39	51 47	50 55	50 03	49 10	48 16		30
	40	56 20	55 32	54 42	53 54	53 06	52 16	51 26	50 36	49 45	48 54	48 01	47 10		40
	50	54 59	54 11	53 23	52 36	51 48	50 59	50 11	49 23	48 33	47 43	46 52	46 01		50
7	00	53 33	52 46	52 02	51 16	50 29	49 42	48 55	48 07	47 19	46 31	45 42	44 53	7	00
	10	52 09	51 24	50 39	49 55	49 09	48 22	47 37	46 50	46 04	45 17	44 30	43 42		10
	20	50 43	49 59	49 16	48 32	47 47	47 03	46 18	45 33	44 48	44 02	43 15	42 29		20
	30	49 15	48 33	47 51	47 08	46 24	45 41	44 58	44 14	43 29	42 46	42 01	41 16		30
	40	47 46	47 05	46 23	45 43	44 59	44 18	43 36	42 53	42 11	41 28	40 44	40 00		40
	50	46 16	45 36	44 55	44 15	43 34	42 54	42 12	41 31	40 49	40 08	39 26	38 44		50
8	00	44 43	44 04	43 24	42 46	42 07	41 27	40 47	40 07	39 27	38 47	38 06	37 26	8	00
	10	43 10	42 32	41 54	41 16	40 38	39 59	39 21	38 43	38 04	37 25	36 46	35 66		10
	20	41 33	40 57	40 21	39 45	39 07	38 30	37 53	37 16	36 38	35 60	34 83	34 06		20
	30	39 57	39 22	38 46	38 10	37 35	36 59	36 24	35 48	35 11	34 36	33 59	33 22		30
	40	38 18	37 44	37 09	36 36	36 01	35 27	34 52	34 18	33 43	33 09	32 33	31 59		40
	50	36 37	36 04	35 31	34 59	34 26	33 53	33 20	32 47	32 13	31 40	31 06	30 33		50
9	00	34 55	34 23	33 52	33 21	32 49	32 17	31 45	31 14	30 42	30 11	29 39	29 06	9	00
	10	33 11	32 41	32 10	31 41	31 10	30 40	30 10	29 39	29 09	28 39	28 08	27 38		10
	20	31 25	30 56	30 27	29 59	29 30	29 02	28 33	28 04	27 35	27 07	26 37	26 09		20
	30	29 37	29 10	28 42	28 16	27 48	27 21	26 54	26 27	25 59	25 33	25 05	24 38		30
	40	27 48	27 22	26 56	26 31	26 05	25 40	25 14	24 48	24 22	23 57	23 31	23 06		40
	50	25 56	25 33	25 09	24 44	24 20	23 57	23 32	23 08	22 44	22 21	21 56	21 33		50
10	00	24 04	23 42	23 19	22 57	22 34	22 12	21 50	21 27	21 05	20 43	20 20	19 58	10	00
	10	22 10	21 48	21 27	21 07	20 46	20 26	20 05	19 44	19 24	19 03	18 42	18 21		10
	20	20 14	19 55	19 36	19 17	18 58	18 39	18 20	18 01	17 42	17 23	17 04	16 45		20
	30	18 17	18 00	17 42	17 26	17 06	16 51	16 33	16 16	15 59	15 42	15 25	15 08		30
	40	16 19	16 03	15 47	15 32	15 16	15 01	14 46	14 31	14 16	14 00	13 45	13 29		40
	50	14 19	14 06	13 51	13 38	13 24	13 11	12 57	12 44	12 31	12 17	12 03	11 50		50
11	00	12 34	12 07	11 55	11 43	11 31	11 19	11 08	10 57	10 45	10 33	10 21	10 10	11	00
	10	10 47	10 08	9 57	9 47	9 36	9 27	9 18	9 08	8 58	8 49	8 39	8 30		10
	20	8 14	8 07	7 59	7 50	7 43	7 35	7 27	7 19	7 12	7 04	6 56	6 49		20
	30	6 11	6 06	5 59	5 54	5 47	5 42	5 36	5 30	5 24	5 18	5 12	5 07		30
	40	4 08	4 04	4 00	3 56	3 52	3 48	3 44	3 40	3 36	3 33	3 29	3 25		40
	50	2 04	2 02	2 00	1 58	1 56	1 54	1 52	1 50	1 48	1 46	1 44	1 42		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 42°.		DECLINATION—SAME NAME AS—LATITUDE.												LATITUDE 42°.	
Hour Angle.		48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	Hour Angle.	
h.	m.	0	0	0	0	0	0	0	0	0	0	0	0	h.	m.
0	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0	00
	10	15 33	13 10	11 22	9 56	8 46	7 49	7 01	6 20	5 45	5 14	4 47	4 23		10
	20	28 46	24 50	21 42	19 09	17 02	15 15	13 45	12 27	11 20	10 20	9 28	8 41		20
	30	38 53	34 17	30 26	27 10	24 24	22 01	19 58	18 09	16 35	15 11	13 56	12 49		30
	40	46 13	41 33	37 27	33 52	30 43	27 58	25 31	23 21	21 25	19 41	18 08	16 44		40
	50	51 31	47 02	42 58	39 18	36 00	33 02	30 21	27 57	25 45	23 47	21 59	20 21		50
1	00	55 19	51 09	47 15	43 39	40 20	37 17	34 30	31 57	29 36	27 27	25 29	23 40	1	00
	10	58 06	54 13	50 39	47 06	43 51	40 50	38 01	35 24	32 59	30 43	28 38	26 40		10
	20	60 07	56 32	53 09	49 48	46 41	43 45	40 58	38 20	35 52	33 33	31 23	29 21		20
	30	61 35	58 16	55 03	51 57	48 58	45 07	42 25	40 49	38 22	36 02	33 50	31 45		30
	40	62 37	59 33	56 33	53 38	50 48	48 03	45 26	42 54	40 29	38 09	35 57	33 50		40
	50	63 21	60 29	57 40	54 55	52 14	49 37	47 05	44 38	42 15	39 56	37 47	35 41		50
2	00	63 49	61 10	58 31	55 56	53 22	50 52	48 27	46 04	43 45	41 31	39 21	37 15	2	00
	10	64 05	61 36	59 07	56 41	54 15	51 52	49 32	47 13	44 59	42 49	40 42	38 37		10
	20	64 12	61 51	59 19	57 13	54 54	52 37	50 24	48 11	46 00	43 54	41 49	39 47		20
	30	64 11	61 59	59 46	57 34	55 21	53 12	51 03	48 56	46 51	44 47	42 45	40 46		30
	40	64 03	61 58	59 52	57 47	55 41	53 37	51 33	49 30	47 31	45 30	43 32	41 36		40
	50	63 49	61 50	59 51	57 52	55 52	53 53	51 55	49 57	48 00	46 04	44 09	42 15		50
3	00	63 31	61 38	59 44	57 51	55 56	54 03	52 08	50 15	48 22	46 30	44 38	42 48	3	00
	10	63 09	61 21	59 32	57 44	55 54	54 05	52 15	50 26	48 37	46 48	44 58	43 13		10
	20	62 43	60 59	59 10	57 31	55 47	54 02	52 16	50 30	48 46	47 00	45 16	43 31		20
	30	62 13	60 34	58 54	57 15	55 34	53 53	52 12	50 39	48 58	47 07	45 25	43 43		30
	40	61 41	60 06	58 30	56 54	55 17	53 40	52 03	50 24	48 46	47 07	45 29	43 51		40
	50	61 05	59 35	58 03	56 30	54 57	53 23	51 48	50 14	48 39	47 04	45 28	43 53		50
4	00	60 28	59 00	57 32	56 03	54 33	53 03	51 32	50 00	48 28	46 55	45 22	43 49	4	00
	10	59 48	58 23	56 58	55 33	54 06	52 39	51 10	49 42	48 13	46 43	45 13	43 43		10
	20	59 05	57 44	56 22	54 59	53 30	52 11	50 40	49 20	47 54	46 27	45 06	43 32		20
	30	58 22	57 03	55 43	54 23	53 02	51 41	50 18	48 55	47 32	46 09	44 43	43 17		30
	40	57 36	56 20	55 02	53 45	52 27	51 08	49 48	48 27	47 06	45 45	44 23	43 00		40
	50	56 48	55 35	54 20	53 05	51 49	50 33	49 15	47 57	46 39	45 19	43 59	42 39		50
5	00	55 58	54 47	53 35	52 23	51 09	49 55	48 40	47 24	46 07	44 50	43 33	42 15	5	00
	10	55 07	53 58	52 48	51 36	50 26	49 15	48 02	46 48	45 34	44 19	43 04	41 48		10
	20	54 15	53 07	52 00	50 52	49 42	48 32	47 22	46 10	44 59	43 47	42 33	41 18		20
	30	53 21	52 16	51 09	50 03	48 56	47 49	46 40	45 31	44 20	43 10	41 59	40 47		30
	40	52 24	51 21	50 17	49 13	48 08	47 02	45 56	44 48	43 40	42 32	41 22	40 12		40
	50	51 27	50 26	49 24	48 22	47 18	46 14	45 09	44 04	43 08	42 04	41 00	39 56		50
6	00	50 26	49 28	48 28	47 26	46 26	45 25	44 21	43 17	42 14	41 00	40 04	38 57	6	00
	10	49 27	48 30	47 31	46 32	45 33	44 32	43 31	42 30	41 27	40 25	39 21	38 17		10
	20	48 25	47 29	46 33	45 35	44 37	43 38	42 41	41 39	40 39	39 39	38 37	37 34		20
	30	47 22	46 28	45 32	44 36	43 40	42 43	41 46	40 46	39 50	38 50	37 50	36 50		30
	40	46 17	45 24	44 30	43 36	42 42	41 47	40 51	39 54	38 57	38 01	37 02	36 03		40
	50	45 11	44 19	43 28	42 34	41 42	40 48	39 54	38 59	38 04	37 08	36 11	35 15		50
7	00	44 03	43 14	42 22	41 31	40 40	39 48	38 56	38 03	37 09	36 15	35 21	34 25	7	00
	10	42 54	42 06	41 16	40 26	39 37	38 47	37 55	37 04	36 13	35 20	34 27	33 33		10
	20	41 43	40 56	40 08	39 20	38 31	37 43	36 54	36 04	35 13	34 22	33 32	32 40		20
	30	40 30	39 45	38 59	38 13	37 25	36 38	35 51	35 02	34 13	33 25	32 35	31 45		30
	40	39 17	38 33	37 47	37 03	36 18	35 32	34 46	33 59	33 13	32 25	31 37	30 49		40
	50	38 02	37 19	36 36	35 52	35 09	34 25	33 40	32 55	32 10	31 24	30 38	29 51		50
8	00	36 45	36 03	35 21	34 40	33 58	33 15	32 32	31 49	31 06	30 21	29 37	28 52	8	00
	10	35 27	34 47	34 06	33 26	32 45	32 05	31 23	30 42	30 00	29 17	28 34	27 51		10
	20	34 07	33 29	32 49	32 11	31 32	30 53	30 13	29 33	28 53	28 12	27 30	26 49		20
	30	32 46	32 09	31 32	30 55	30 17	29 39	29 01	28 22	27 44	27 05	26 25	25 46		30
	40	31 23	30 48	30 12	29 36	29 00	28 25	27 48	27 11	26 36	25 57	25 19	24 41		40
	50	29 59	29 26	28 51	28 18	27 42	27 09	26 34	25 58	25 24	24 48	24 11	23 35		50
9	00	28 34	28 02	27 29	26 57	26 24	25 51	25 18	24 44	24 11	23 36	23 03	22 28	9	00
	10	27 07	26 37	26 06	25 35	25 03	24 33	24 00	23 29	22 58	22 25	21 52	21 20		10
	20	25 39	25 11	24 41	24 12	23 42	23 13	22 43	22 13	21 43	21 13	20 42	20 11		20
	30	24 11	23 43	23 15	22 48	22 20	21 52	21 24	20 56	20 27	19 59	19 30	19 00		30
	40	22 40	22 15	21 48	21 23	20 56	20 30	20 03	19 37	19 10	18 43	18 17	17 49		40
	50	21 08	20 44	20 19	19 56	19 31	19 07	18 42	18 17	17 52	17 28	17 02	16 36		50
10	00	19 36	19 14	18 51	18 28	18 05	17 42	17 20	16 57	16 34	16 11	15 47	15 23	10	00
	10	18 02	17 41	17 20	16 59	16 38	16 17	15 57	15 35	15 14	14 53	14 31	14 10		10
	20	16 27	16 08	15 49	15 30	15 11	14 52	14 33	14 13	13 53	13 35	13 15	12 55		20
	30	14 50	14 33	14 16	13 59	13 44	13 25	13 07	12 50	12 33	12 16	11 57	11 39		30
	40	13 14	12 59	12 43	12 28	12 13	11 57	11 42	11 27	11 10	10 55	10 39	10 23		40
	50	11 37	11 23	11 10	10 57	10 42	10 29	10 15	10 02	9 49	9 34	9 20	9 07		50
11	00	9 59	9 47	9 35	9 24	9 12	9 01	8 48	8 37	8 25	8 13	8 01	7 50	11	00
	10	8 21	8 11	8 00	7 51	7 41	7 32	7 21	7 12	7 02	6 52	6 42	6 32		10
	20	6 41	6 33	6 25	6 17	6 10	6 01	5 54	5 46	5 38	5 31	5 22	5 14		20
	30	5 01	4 55	4 50	4 43	4 37	4 31	4 26	4 20	4 14	4 08	4 02	3 56		30
	40	3 21	3 17	3 13	3 09	3 05	3 01	2 58	2 53	2 49	2 46	2 41	2 37		40
	50	1 40	1 38	1 36	1 34	1 32	1 30	1 28	1 26	1 25	1 23	1 21	1 19		50
12	00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	12	00

In North latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from North to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from North to West.

In South latitude, when the star is rising or East of the meridian, the tabulated azimuths are reckoned from South to East; and when the star is setting or West of the meridian, the tabulated azimuths are reckoned from South to West.

When the latitude and declination are of different name, the tables are to be entered with the supplement of the hour angle and the supplement of the tabulated azimuth is to be taken for the required true bearing.

AZIMUTH OR TRUE BEARING.

LATITUDE 42°.		DECLINATION—SAME NAME AS—LATITUDE										LATITUDE 42°.	
Hour Angle.		60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°	Hour Angle.
h.	m.	0	0	0	0	0	0	0	0	0	0	0	h.
0	00	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
	10	4 02	3 42	3 25	3 09	2 55	2 42	2 30	2 18	2 08	1 58	1 49	10
	20	8 00	7 22	6 48	6 17	5 48	5 22	4 58	4 36	4 15	3 56	3 38	20
	30	11 49	10 54	10 05	9 19	8 38	7 59	7 24	6 50	6 20	5 51	5 25	30
	40	15 28	14 18	13 14	12 15	11 22	10 32	9 46	9 03	8 23	7 45	7 09	40
	50	18 51	17 29	16 13	15 03	13 58	12 58	12 01	11 10	10 20	9 35	8 51	50
1	00	22 00	20 26	19 00	17 40	16 26	15 16	14 12	13 11	12 14	11 21	10 31	1
	10	24 52	23 10	21 36	20 08	18 46	17 28	16 16	15 07	14 04	13 03	12 05	10
	20	27 27	25 39	23 58	22 24	20 55	19 31	18 12	16 57	15 46	14 40	13 36	20
	30	29 46	27 55	26 09	24 29	22 50	21 25	20 00	18 41	17 24	16 11	15 03	30
	40	31 50	29 55	28 06	26 22	24 45	23 11	21 42	20 17	18 55	17 37	16 24	40
	50	33 39	31 43	29 51	28 06	26 24	24 47	23 14	21 45	20 17	18 58	17 42	50
2	00	35 15	33 19	31 26	29 38	27 54	26 15	24 39	23 07	21 39	20 14	18 53	2
	10	37 38	34 41	32 48	31 00	29 16	27 32	25 56	24 22	22 51	21 23	19 59	10
	20	39 49	35 53	34 01	32 13	30 27	28 45	27 05	25 30	23 57	22 27	21 00	20
	30	41 50	37 55	35 05	33 17	31 31	29 48	28 08	26 32	24 57	23 25	21 56	30
	40	43 41	39 47	37 50	36 00	34 12	32 26	30 43	29 04	27 27	25 51	24 18	40
	50	45 24	41 34	39 45	37 50	36 00	34 15	32 32	30 52	29 15	27 39	25 05	50
3	00	47 09	43 11	39 25	35 39	33 57	32 15	30 35	28 58	27 22	25 47	24 16	3
	10	49 27	45 27	41 41	37 56	36 13	34 32	32 51	31 12	29 35	27 59	26 25	10
	20	51 48	47 48	44 05	40 22	38 42	36 61	34 83	33 07	31 30	29 56	28 23	20
	30	54 02	49 59	46 22	42 38	40 57	39 16	37 37	35 59	34 21	32 45	31 10	30
	40	56 12	52 09	48 34	44 50	43 09	41 28	39 49	38 10	36 32	34 56	33 21	40
	50	58 17	54 14	50 40	46 56	45 15	43 34	41 55	40 16	38 38	36 61	34 85	50
4	00	60 16	56 14	52 30	48 46	46 64	44 83	43 04	41 25	39 47	38 09	36 32	4
	10	62 13	58 11	54 26	50 42	48 60	46 79	45 00	43 21	41 43	39 65	37 88	10
	20	64 04	60 02	56 17	52 33	50 51	49 10	47 31	45 52	44 13	42 35	40 58	20
	30	65 52	61 50	58 05	54 21	52 39	50 58	49 18	47 39	45 60	43 82	42 05	30
	40	67 36	63 34	59 49	56 05	54 23	52 42	50 62	48 83	47 04	45 25	43 47	40
	50	69 17	65 15	61 30	57 46	56 04	54 23	52 43	50 64	48 85	47 06	45 27	50
5	00	71 05	67 03	63 18	59 34	57 52	56 11	54 31	52 52	51 12	49 33	47 55	5
	10	72 50	68 48	64 63	60 79	59 00	57 19	55 39	53 59	52 20	50 41	49 03	10
	20	74 32	70 30	66 45	62 61	60 82	59 01	57 21	55 41	54 02	52 23	50 44	20
	30	76 11	72 09	68 24	64 40	63 01	61 20	59 40	58 00	56 21	54 42	53 03	30
	40	77 47	73 45	69 60	65 76	63 97	62 16	60 36	58 56	57 17	55 37	53 58	40
	50	79 20	75 18	71 33	67 49	66 10	64 29	62 49	61 09	59 30	57 50	56 11	50
6	00	81 00	76 58	73 13	69 29	67 50	66 10	64 30	62 50	61 10	59 30	57 51	6
	10	82 37	78 35	74 50	71 06	69 27	67 47	66 07	64 27	62 47	61 07	59 28	10
	20	84 12	80 10	76 25	72 41	70 62	68 82	67 02	65 22	63 42	62 02	60 23	20
	30	85 45	81 43	77 58	74 14	72 35	70 55	69 15	67 35	65 55	64 15	62 36	30
	40	87 16	83 14	79 29	75 45	73 66	71 86	70 06	68 26	66 46	65 06	63 27	40
	50	88 45	84 43	80 58	77 14	75 35	73 55	72 15	70 35	68 55	67 15	65 36	50
7	00	90 12	86 10	82 25	78 41	76 62	74 82	73 02	71 22	69 42	68 02	66 23	7
	10	91 48	87 46	83 61	79 77	77 58	76 18	74 38	72 58	71 18	69 38	67 59	10
	20	93 22	89 20	85 35	81 51	79 72	77 92	76 12	74 32	72 52	71 12	69 33	20
	30	94 54	90 52	86 67	82 83	80 64	78 84	77 04	75 24	73 44	72 04	70 25	30
	40	96 24	92 22	88 37	84 53	82 74	80 94	79 14	77 34	75 54	74 14	72 35	40
	50	97 52	93 50	89 65	85 81	83 62	81 82	80 02	78 22	76 42	75 02	73 23	50
8	00	99 18	95 16	91 31	87 47	85 28	83 48	81 68	79 88	78 08	76 28	74 49	8
	10	100 43	96 41	92 56	89 12	86 93	85 13	83 33	81 53	80 13	78 33	76 54	10
	20	102 06	98 04	94 19	90 35	88 16	86 36	84 56	83 16	81 36	79 56	78 17	20
	30	103 28	99 26	95 41	91 57	89 38	87 58	86 18	84 38	82 58	81 18	79 39	30
	40	104 49	100 47	96 62	92 78	90 59	89 19	87 39	85 59	84 19	82 39	80 60	40
	50	106 09	102 07	98 22	94 38	92 19	90 39	88 59	87 19	85 39	83 59	82 20	50
9	00	107 28	103 26	99 41	95 57	93 38	91 58	90 18	88 38	86 58	85 18	83 39	9
	10	108 46	104 44	100 59	97 15	94 96	93 16	91 36	89 56	88 16	86 36	84 57	10
	20	109 63	105 61	101 76	97 92	95 73	93 93	92 13	90 33	88 53	87 13	85 34	20
	30	110 79	106 77	102 92	99 08	96 89	95 09	93 29	91 49	89 69	87 89	86 10	30
	40	111 94	107 92	104 07	100 23	98 04	96 24	94 44	92 64	90 84	89 04	87 25	40
	50	113 08	109 06	105 22	101 38	99 19	97 39	95 59	94 19	92 39	90 59	89 20	50
10	00	114 21	110 19	106 34	102 50	100 31	98 51	97 11	95 31	93 51	92 11	90 32	10
	10	115 33	111 31	107 46	104 02	101 83	100 03	98 23	96 43	95 03	93 23	91 44	10
	20	116 45	112 43	108 58	105 14	102 95	101 15	99 35	97 55	96 15	94 35	92 56	20
	30	117 56	113 54	110 09	106 25	104 06	102 26	100 46	98 66	96 86	95 06	93 27	30
	40	119 06	115 04	111 19	107 35	105 16	103 36	101 56	100 16	98 36	96 56	95 17	40
	50	120 15	116 13	112 28	108 44	106 25	104 45	103 05	101 25	99 45	97 65	95 86	50
11	00	121 24	117 22	113 37	109 53	107 34	105 54	104 14	102 34	100 54	99 14	97 35	11
	10	122 32	118 30	114 45	111 01	108 82	107 02	105 22	103 42	102 02	100 22	98 43	10
	20	123 39	119 37	115 52	112 08	109 89	108 09	106 29	104 49	103 09	101 29	99 50	20
	30	124 45	120 43	116 58	113 14	110 95	109 15	107 35	105 55	104 15	102 35	100 56	30
	40	125 50	121 48	118 03	114 19	112 00	110 20	108 40	107 00	105 20	103 40	102 01	40
	50	126 54	122 52	119 07	115 23	113 04	111 24	109 44	108 04	106 24	104 44	103 05	50
12	00	127 57	123 55	120 10	116 26	114 07	112 27	110 47	109 07	107 27	105 47	104 08	12

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