

## Solutions for GeoWorkSheet No. 110

Solutions sheet No. 110			Mixed Trig Ratio and Reciprocal Ratio - Find a Side 2 (DMS)					
Working using $H = \frac{O}{\sin A}$ or $H = \frac{O}{\cos A}$ or $A = \frac{O}{\tan A}$ or $\sin A = \frac{O}{H}$ or $\cos A = \frac{A}{H}$ or $\tan A = \frac{O}{A}$								
No.	Opp	Adj	Hyp	Angle	Equation	Calculator	1 Dec. Place	Solution
1	$a$	60		17°20'	$a = 60 \times \tan 17^\circ 20'$	18.726219	18.7	$a = 18.7$
2	42	$b$		42°39'	$b = 42 / \tan 42^\circ 39'$	45.594735	45.6	$b = 45.6$
3	325		$c$	67°59'	$c = 325 / \sin 67^\circ 59'$	350.56501	350.6	$c = 350.6$
4	$d$	80		64°40'	$d = 80 \times \tan 64^\circ 40'$	168.98678	169	$d = 169$
5		360	$e$	25°15'	$e = 360 / \cos 25^\circ 15'$	398.02969	398	$e = 398$
6	$f$		66	78°26'	$f = 66 \times \sin 78^\circ 26'$	64.659676	64.7	$f = 64.7$
7		20	$g$	28°51'	$g = 20 / \cos 28^\circ 51'$	22.834023	22.8	$g = 22.8$
8		25	$h$	38°47'	$h = 25 / \cos 38^\circ 47'$	32.07101	32.1	$h = 32.1$
9	70	$i$		68°22'	$i = 70 / \tan 68^\circ 22'$	27.76208	27.8	$i = 27.8$
10		13.5	$j$	47°24'	$j = 13.5 / \cos 47^\circ 24'$	19.94457	19.9	$j = 19.9$
11	$k$		420	43°14'	$k = 420 \times \sin 43^\circ 14'$	287.68786	287.7	$k = 287.7$
12		28	$l$	41°54'	$l = 28 / \cos 41^\circ 54'$	37.618656	37.6	$l = 37.6$
13		80	$m$	34°38'	$m = 80 / \cos 34^\circ 38'$	97.22828	97.2	$m = 97.2$
14	$n$		35	65°45'	$n = 35 \times \sin 65^\circ 45'$	31.911672	31.9	$n = 31.9$
15	500		$p$	75°18'	$p = 500 / \sin 75^\circ 18'$	516.91995	516.9	$p = 516.9$
16	$q$	625		73°46'	$q = 625 \times \tan 73^\circ 46'$	2146.602	2146.6	$q = 2146.6$
17	2000		$r$	80°30'	$r = 2000 / \sin 80^\circ 30'$	2027.8102	2027.8	$r = 2027.8$
18	$s$	40		73°47'	$s = 40 \times \tan 73^\circ 47'$	137.53156	137.5	$s = 137.5$
19		240	$t$	47°53'	$t = 240 / \cos 47^\circ 53'$	357.86582	357.9	$t = 357.9$
20	400		$u$	69°18'	$u = 400 / \sin 69^\circ 18'$	427.60442	427.6	$u = 427.6$