

## Solutions for GeoWorkSheet No. 91

Solutions sheet No. 91				Mixed Trig Ratio - Find an Side 1 (Degrees & Minutes)						
Working using $\sin A = \frac{O}{H}$ or $\cos A = \frac{A}{H}$ or $\tan A = \frac{O}{A}$										
No.	Opp	Adj	Hyp	A	Side	Equation	Calculator	Rounded	Solution	
1			20	48°30'	<i>a</i>	$a = 20 \times \cos 48^\circ 30'$	13.252401	13.3	$a = 13.3$	
2		170		32°24'	<i>b</i>	$b = 170 \times \tan 32^\circ 24'$	107.88528	107.9	$b = 107.9$	
3			35	42°36'	<i>c</i>	$c = 35 \times \cos 42^\circ 36'$	25.763398	25.8	$c = 25.8$	
4			45	66°40'	<i>d</i>	$d = 45 \times \sin 66^\circ 40'$	41.319725	41.3	$d = 41.3$	
5			100	34°26'	<i>e</i>	$e = 100 \times \sin 34^\circ 26'$	56.544694	56.5	$e = 56.5$	
6		116		62°49'	<i>f</i>	$f = 116 \times \tan 62^\circ 49'$	225.87318	225.9	$f = 225.9$	
7			19.8	21°31'	<i>g</i>	$g = 19.8 \times \cos 21^\circ 31'$	18.420156	18.4	$g = 18.4$	
8			340	38°9'	<i>h</i>	$h = 340 \times \sin 38^\circ 9'$	210.02561	210	$h = 210$	
9		116		40°55'	<i>i</i>	$i = 116 \times \tan 40^\circ 55'$	100.54143	100.5	$i = 100.5$	
10			26	57°50'	<i>j</i>	$j = 26 \times \sin 57^\circ 50'$	22.009079	22	$j = 22$	
11			70	46°52'	<i>k</i>	$k = 70 \times \cos 46^\circ 52'$	47.858891	47.9	$k = 47.9$	
12			275	37°35'	<i>l</i>	$l = 275 \times \cos 37^\circ 35'$	217.92845	217.9	$l = 217.9$	
13		40		53°48'	<i>m</i>	$m = 40 \times \tan 53^\circ 48'$	54.653069	54.7	$m = 54.7$	
14			22.6	20°7'	<i>n</i>	$n = 22.6 \times \sin 20^\circ 7'$	7.7728824	7.8	$n = 7.8$	
15			335	58°13'	<i>p</i>	$p = 335 \times \cos 58^\circ 13'$	176.44736	176.4	$p = 176.4$	
16			120	48°50'	<i>q</i>	$q = 120 \times \sin 48^\circ 50'$	90.335759	90.3	$q = 90.3$	
17			2.17	65°40'	<i>r</i>	$r = 2.17 \times \cos 65^\circ 40'$	0.8941366	0.9	$r = 0.9$	
18			4.5	60°30'	<i>s</i>	$s = 4.5 \times \sin 60^\circ 30'$	3.9166006	3.9	$s = 3.9$	
19		8.75		70°20'	<i>t</i>	$t = 8.75 \times \tan 70^\circ 20'$	24.482673	24.5	$t = 24.5$	
20			2200	73°40'	<i>u</i>	$u = 2200 \times \sin 73^\circ 40'$	2111.2121	2111.2	$u = 2111.2$	