

Solutions sheet No. 115				Sine Rule - Find an Angle 1 (degrees & minutes)				
Working using $a\sin A = b\sin B$								
No.	a	b	B	Angle	Equation	Calculator	Degrees	Solution
1	5	6	75°15'	<i>a</i>	$\sin a^\circ = 5(\sin 75^\circ 15')/6$	53.604286	53°36'	$a^\circ = 53^\circ 36'$
2	18	12	32°41'	<i>b</i>	$\sin b^\circ = 18(\sin 32^\circ 41')/12$	52.643819	52°39'	$b^\circ = 52^\circ 39'$
3	15	12	46°18'	<i>c</i>	$\sin c^\circ = 15(\sin 46^\circ 18')/12$	64.049803	64°3'	$c^\circ = 64^\circ 3'$
4	26	50	75°36'	<i>d</i>	$\sin d^\circ = 26(\sin 75^\circ 36')/50$	30.151053	30°9'	$d^\circ = 30^\circ 9'$
5	31	32	54°40'	<i>e</i>	$\sin e^\circ = 31(\sin 54^\circ 40')/32$	51.603852	51°36'	$e^\circ = 51^\circ 36'$
6	64	72	58°8'	<i>f</i>	$\sin f^\circ = 64(\sin 58^\circ 8')/72$	48.922417	48°55'	$f^\circ = 48^\circ 55'$
7	38	48	59°36'	<i>g</i>	$\sin g^\circ = 38(\sin 59^\circ 36')/48$	42.73362	42°44'	$g^\circ = 42^\circ 44'$
8	95	65	28°28'	<i>h</i>	$\sin h^\circ = 95(\sin 28^\circ 28')/65$	43.326174	43°20'	$h^\circ = 43^\circ 20'$
9	225	270	76°8'	<i>i</i>	$\sin i^\circ = 225(\sin 76^\circ 8')/270$	53.957402	53°57'	$i^\circ = 53^\circ 57'$
10	45	52	66°30'	<i>j</i>	$\sin j^\circ = 45(\sin 66^\circ 30')/52$	52.238641	52°14'	$j^\circ = 52^\circ 14'$
11	14.5	18.9	77°6'	<i>k</i>	$\sin k^\circ = 14.5(\sin 77^\circ 6')/18.9$	48.377093	48°23'	$k^\circ = 48^\circ 23'$
12	60	80	73°28'	<i>l</i>	$\sin l^\circ = 60(\sin 73^\circ 28')/80$	45.826137	45°50'	$l^\circ = 45^\circ 50'$
13	19.3	15.6	41°17'	<i>m</i>	$\sin m^\circ = 19.3(\sin 41^\circ 17')/15.6$	54.258708	54°16'	$m^\circ = 54^\circ 16'$
14	32.5	34.5	76°43'	<i>n</i>	$\sin n^\circ = 32.5(\sin 76^\circ 43')/34.5$	66.070706	66°4'	$n^\circ = 66^\circ 4'$
15	4.8	6.4	70°52'	<i>p</i>	$\sin p^\circ = 4.8(\sin 70^\circ 52')/6.4$	44.810923	44°49'	$p^\circ = 44^\circ 49'$
16	17.5	12.5	38°24'	<i>q</i>	$\sin q^\circ = 17.5(\sin 38^\circ 24')/12.5$	59.533534	59°32'	$q^\circ = 59^\circ 32'$
17	36	20	26°49'	<i>r</i>	$\sin r^\circ = 36(\sin 26^\circ 49')/20$	52.098506	52°6'	$r^\circ = 52^\circ 6'$
18	12.3	10.7	43°46'	<i>s</i>	$\sin s^\circ = 12.3(\sin 43^\circ 46')/10.7$	51.626386	51°38'	$s^\circ = 51^\circ 38'$
19	125	180	81°21'	<i>t</i>	$\sin t^\circ = 125(\sin 81^\circ 21')/180$	43.306009	43°18'	$t^\circ = 43^\circ 18'$
20	4.1	3.3	37°50'	<i>u</i>	$\sin u^\circ = 4.1(\sin 37^\circ 50')/3.3$	48.392362	48°24'	$u^\circ = 48^\circ 24'$