

# Sine Law Drills

Solve the triangle ABC given the following. Round the angles to the nearest degree and the lengths to 2 decimal places.

1.  $A = 5^\circ$ ,  $a = 2.46$  cm,  $b = 16.57$  cm.
2.  $C = 143^\circ$ ,  $a = 1.97$  deg,  $c = 5.69$  cm.
3.  $A = 51^\circ$ ,  $a = 23.38$  cm,  $b = 1.57$  cm.
4.  $C = 33^\circ$ ,  $b = 8.88$  deg,  $c = 21.5$  cm.
5.  $A = 39^\circ$ ,  $B = 45^\circ$ ,  $a = 13.13$  cm.
6.  $B = 25^\circ$ ,  $a = 25.68$  cm,  $b = 11.09$  cm.
7.  $B = 10^\circ$ ,  $C = 29^\circ$ ,  $b = 12.11$  cm.
8.  $B = 1^\circ$ ,  $C = 9^\circ$ ,  $c = 24.76$  cm.
9.  $A = 30^\circ$ ,  $B = 31^\circ$ ,  $b = 19.95$  cm.
10.  $A = 61^\circ$ ,  $C = 46^\circ$ ,  $c = 31.44$  cm.
11.  $A = 63^\circ$ ,  $a = 18.09$  cm,  $c = 19.86$  cm.
12.  $B = 13^\circ$ ,  $C = 15^\circ$ ,  $c = 20.85$  cm.
13.  $B = 12^\circ$ ,  $C = 133^\circ$ ,  $b = 4.9$  cm.
14.  $C = 23^\circ$ ,  $b = 28.41$  deg,  $c = 13.72$  cm.
15.  $A = 107^\circ$ ,  $B = 36^\circ$ ,  $b = 9.03$  cm.

## Answers

1.  $B=36^\circ$ ,  $C=139^\circ$ ,  $c=18.49$  cm. 2.  $A=12^\circ$ ,  $B=25^\circ$ ,  $b=4$  cm. 3.  $B=3^\circ$ ,  $C=126^\circ$ ,  $c=24.34$  cm.  
4.  $A=134^\circ$ ,  $B=13^\circ$ ,  $a=28.4$  cm. 5.  $C=96^\circ$ ,  $b=14.75$  cm,  $c=20.75$  cm. 6.  $A=78^\circ$ ,  $C=77^\circ$ ,  $c=25.58$  cm.  
7.  $A=141^\circ$ ,  $a=43.88$  cm,  $c=33.8$  cm. 8.  $A=170^\circ$ ,  $a=27.48$  cm,  $b=2.76$  cm. 9.  $C=119^\circ$ ,  $a=19.37$  cm,  $c=33.88$  cm. 10.  $B=73^\circ$ ,  $a=38.23$  cm,  $b=41.8$  cm. 11.  $B=39^\circ$ ,  $C=78^\circ$ ,  $b=12.78$  cm. 12.  $A=152^\circ$ ,  $a=37.82$  cm,  $b=18.12$  cm. 13.  $A=35^\circ$ ,  $a=13.52$  cm,  $c=17.24$  cm. 14.  $A=103^\circ$ ,  $B=54^\circ$ ,  $a=34.21$  cm. 15.  $C=37^\circ$ ,  $a=14.7$  cm,  $c=9.25$  cm.