

# Cosine Law Drills

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

1.  $A = 81^\circ$ ,  $b = 29.9$  cm,  $c = 19.08$  cm.
2.  $A = 64^\circ$ ,  $b = 60.33$  cm,  $c = 36.99$  cm.
3.  $C = 21^\circ$ ,  $a = 20.24$  cm,  $b = 20.84$  cm.
4.  $C = 53^\circ$ ,  $a = 13.65$  cm,  $b = 18.03$  cm.
5.  $B = 51^\circ$ ,  $a = 8.75$  cm,  $c = 5.86$  cm.
6.  $a = 35.64$  cm,  $b = 28.82$  cm,  $c = 25.96$  cm.
7.  $A = 51^\circ$ ,  $b = 39.09$  cm,  $c = 39.42$  cm.
8.  $a = 25.06$  cm,  $b = 25.42$  cm,  $c = 32.11$  cm.
9.  $A = 77^\circ$ ,  $b = 39.02$  cm,  $c = 24.14$  cm.
10.  $A = 56^\circ$ ,  $b = 13.25$  cm,  $c = 12.07$  cm.
11.  $C = 44^\circ$ ,  $a = 13.18$  cm,  $b = 11.43$  cm.
12.  $a = 50.02$  cm,  $b = 52.87$  cm,  $c = 18.96$  cm.
13.  $a = 25.1$  cm,  $b = 22.94$  cm,  $c = 17.72$  cm.
14.  $C = 38^\circ$ ,  $a = 12.38$  cm,  $b = 12.53$  cm.
15.  $B = 54^\circ$ ,  $a = 41.22$  cm,  $c = 38.38$  cm.

## Answers

1.  $B=64^\circ$ ,  $C=35^\circ$ ,  $a=32.86$  cm. 2.  $B=79^\circ$ ,  $C=37^\circ$ ,  $a=55.24$  cm. 3.  $A=75^\circ$ ,  $B=84^\circ$ ,  $c=7.51$  cm. 4.  $A=48^\circ$ ,  $B=79^\circ$ ,  $c=14.67$  cm. 5.  $A=87^\circ$ ,  $C=42^\circ$ ,  $b=6.81$  cm. 6.  $A=81^\circ$ ,  $B=53^\circ$ ,  $C=46^\circ$ . 7.  $B=64^\circ$ ,  $C=65^\circ$ ,  $a=33.8$  cm. 8.  $A=50^\circ$ ,  $B=51^\circ$ ,  $C=79^\circ$ . 9.  $B=68^\circ$ ,  $C=35^\circ$ ,  $a=41.01$  cm. 10.  $B=67^\circ$ ,  $C=57^\circ$ ,  $a=11.93$  cm. 11.  $A=78^\circ$ ,  $B=58^\circ$ ,  $c=9.36$  cm. 12.  $A=71^\circ$ ,  $B=88^\circ$ ,  $C=21^\circ$ . 13.  $A=75^\circ$ ,  $B=62^\circ$ ,  $C=43^\circ$ . 14.  $A=70^\circ$ ,  $B=72^\circ$ ,  $c=8.11$  cm. 15.  $A=67^\circ$ ,  $C=59^\circ$ ,  $b=36.22$  cm.