

# Cosine Law Drills

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

1.  $C = 24$  deg,  $a = 22.98$  cm,  $b = 21.65$  cm.
2.  $C = 64$  deg,  $a = 38.38$  cm,  $b = 30.76$  cm.
3.  $B = 63$  deg,  $a = 55.51$  cm,  $c = 36.62$  cm.
4.  $C = 26$  deg,  $a = 29.08$  cm,  $b = 27.03$  cm.
5.  $a = 27.95$  cm,  $b = 28.1$  cm,  $c = 15.92$  cm.
6.  $B = 60$  deg,  $a = 32.58$  cm,  $c = 33.24$  cm.
7.  $a = 22.15$  cm,  $b = 26.67$  cm,  $c = 29.6$  cm.
8.  $B = 86$  deg,  $a = 64.74$  cm,  $c = 37.42$  cm.
9.  $C = 66$  deg,  $a = 8.2$  cm,  $b = 9.19$  cm.
10.  $a = 77.8$  cm,  $b = 77.8$  cm,  $c = 42.89$  cm.
11.  $A = 86$  deg,  $b = 124.31$  cm,  $c = 39.59$  cm.
12.  $A = 60$  deg,  $b = 41.33$  cm,  $c = 43.91$  cm.
13.  $A = 55$  deg,  $b = 28.35$  cm,  $c = 37.91$  cm.
14.  $a = 19.13$  cm,  $b = 24.3$  cm,  $c = 24.66$  cm.
15.  $B = 74$  deg,  $a = 32.08$  cm,  $c = 16.53$  cm.

## Answers

1.  $A=86$  deg,  $B=70$  deg,  $c=9.37$  cm. 2.  $A=68$  deg,  $B=48$  deg,  $c=37.2$  cm. 3.  $A=77$  deg,  $C=40$  deg,  $b=50.76$  cm. 4.  $A=86$  deg,  $B=68$  deg,  $c=12.78$  cm. 5.  $A=73$  deg,  $B=74$  deg,  $C=33$  deg. 6.  $A=59$  deg,  $C=61$  deg,  $b=32.91$  cm. 7.  $A=46$  deg,  $B=60$  deg,  $C=74$  deg. 8.  $A=63$  deg,  $C=31$  deg,  $b=72.48$  cm. 9.  $A=52$  deg,  $B=62$  deg,  $c=9.51$  cm. 10.  $A=74$  deg,  $B=74$  deg,  $C=32$  deg. 11.  $B=76$  deg,  $C=18$  deg,  $a=127.8$  cm. 12.  $B=57$  deg,  $C=63$  deg,  $a=42.68$  cm. 13.  $B=47$  deg,  $C=78$  deg,  $a=31.75$  cm. 14.  $A=46$  deg,  $B=66$  deg,  $C=68$  deg. 15.  $A=76$  deg,  $C=30$  deg,  $b=31.78$  cm.