

Cosine Law Drills

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

1. $A = 72$ deg, $b = 23.29$ cm, $c = 15.7$ cm.
2. $a = 231.98$ cm, $b = 231.73$ cm, $c = 28.31$ cm.
3. $A = 66$ deg, $b = 60.5$ cm, $c = 39.42$ cm.
4. $B = 83$ deg, $a = 267.43$ cm, $c = 41.86$ cm.
5. $C = 10$ deg, $a = 88.33$ cm, $b = 89.42$ cm.
6. $a = 16.86$ cm, $b = 15.71$ cm, $c = 18.24$ cm.
7. $C = 43$ deg, $a = 30.43$ cm, $b = 28.6$ cm.
8. $A = 74$ deg, $b = 7.77$ cm, $c = 5.31$ cm.
9. $A = 53$ deg, $b = 34$ cm, $c = 26.73$ cm.
10. $a = 17.71$ cm, $b = 15.52$ cm, $c = 20.07$ cm.
11. $C = 26$ deg, $a = 17.02$ cm, $b = 17.43$ cm.
12. $a = 42.03$ cm, $b = 43.08$ cm, $c = 17$ cm.
13. $a = 14.49$ cm, $b = 15.51$ cm, $c = 9.32$ cm.
14. $a = 22.17$ cm, $b = 24.7$ cm, $c = 26.63$ cm.
15. $a = 6.85$ cm, $b = 7.58$ cm, $c = 9.2$ cm.

Answers

1. $B=69$ deg, $C=39$ deg, $a=23.73$ cm. 2. $A=87$ deg, $B=86$ deg, $C=7$ deg. 3. $B=75$ deg, $C=39$ deg, $a=57.22$ cm.
4. $A=88$ deg, $C=9$ deg, $b=265.59$ cm. 5. $A=81$ deg, $B=89$ deg, $c=15.53$ cm. 6. $A=59$ deg, $B=53$ deg, $C=68$ deg.
7. $A=73$ deg, $B=64$ deg, $c=21.7$ cm. 8. $B=67$ deg, $C=39$ deg, $a=8.11$ cm. 9. $B=77$ deg, $C=50$ deg, $a=27.87$ cm.
10. $A=58$ deg, $B=48$ deg, $C=74$ deg. 11. $A=74$ deg, $B=80$ deg, $c=7.76$ cm. 12. $A=75$ deg, $B=82$ deg, $C=23$ deg.
13. $A=66$ deg, $B=78$ deg, $C=36$ deg. 14. $A=51$ deg, $B=60$ deg, $C=69$ deg. 15. $A=47$ deg, $B=54$ deg, $C=79$ deg.