

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. $A = 61^\circ$, $C = 21^\circ$, $a = 16.62$ cm.
2. $B = 56^\circ$, $b = 89.17$ cm, $c = 43.75$ cm.
3. $A = 132^\circ$, $B = 25^\circ$, $a = 11.09$ cm.
4. $B = 34^\circ$, $C = 22^\circ$, $c = 30.03$ cm.
5. $B = 17^\circ$, $C = 82^\circ$, $b = 5.91$ cm.
6. $B = 6^\circ$, $C = 13^\circ$, $c = 20.44$ cm.
7. $B = 45^\circ$, $C = 71^\circ$, $b = 26.27$ cm.
8. $B = 14^\circ$, $b = 20.1$ cm, $c = 28.41$ cm.
9. $A = 76^\circ$, $C = 80^\circ$, $a = 39.77$ cm.
10. $C = 31^\circ$, $b = 48.69$ cm, $c = 27.45$ cm.
11. $A = 146^\circ$, $B = 6^\circ$, $a = 7.52$ cm.
12. $A = 85^\circ$, $C = 82^\circ$, $c = 25.22$ cm.
13. $A = 135^\circ$, $B = 28^\circ$, $b = 58.1$ cm.
14. $C = 14^\circ$, $a = 95.46$ cm, $c = 32.66$ cm.
15. $A = 168^\circ$, $a = 43.11$ cm, $b = 3.62$ cm.

Answers

1. $B=98^\circ$, $b=18.82$ cm, $c=6.81$ cm. 2. $A=100^\circ$, $C=24^\circ$, $a=105.93$ cm. 3. $C=23^\circ$, $b=6.31$ cm, $c=5.83$ cm. 4. $A=124^\circ$, $a=66.46$ cm, $b=44.83$ cm. 5. $A=81^\circ$, $a=19.98$ cm, $c=20.03$ cm. 6. $A=161^\circ$, $a=29.58$ cm, $b=9.5$ cm. 7. $A=64^\circ$, $a=33.39$ cm, $c=35.13$ cm. 8. $A=146^\circ$, $C=20^\circ$, $a=46.45$ cm. 9. $B=24^\circ$, $b=16.67$ cm, $c=40.36$ cm. 10. $A=83^\circ$, $B=66^\circ$, $a=52.9$ cm. 11. $C=28^\circ$, $b=1.4$ cm, $c=6.31$ cm. 12. $B=13^\circ$, $a=25.37$ cm, $b=5.73$ cm. 13. $C=17^\circ$, $a=87.5$ cm, $c=36.18$ cm. 14. $A=45^\circ$, $B=121^\circ$, $b=6.77$ cm. 15. $B=1^\circ$, $C=11^\circ$, $c=39.56$ cm.