

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. $A = 135^\circ$, $a = 46.74$ cm, $c = 30.01$ cm.
2. $C = 129^\circ$, $b = 7.34$ deg, $c = 40.97$ cm.
3. $A = 46^\circ$, $a = 34.28$ cm, $b = 47.19$ cm.
4. $A = 12^\circ$, $C = 46^\circ$, $c = 6.33$ cm.
5. $A = 89^\circ$, $C = 70^\circ$, $a = 30.86$ cm.
6. $C = 10^\circ$, $b = 5.65$ deg, $c = 28.12$ cm.
7. $A = 43^\circ$, $a = 6.26$ cm, $c = 7.03$ cm.
8. $A = 63^\circ$, $C = 73^\circ$, $c = 39.65$ cm.
9. $A = 58^\circ$, $C = 22^\circ$, $a = 52.57$ cm.
10. $C = 83^\circ$, $a = 22.48$ deg, $c = 23.74$ cm.
11. $A = 85^\circ$, $a = 20.06$ cm, $c = 18.67$ cm.
12. $B = 90^\circ$, $a = 22.22$ cm, $b = 38.75$ cm.
13. $A = 147^\circ$, $a = 69.48$ cm, $c = 41.53$ cm.
14. $B = 13^\circ$, $C = 17^\circ$, $c = 22.97$ cm.
15. $A = 43^\circ$, $a = 50.41$ cm, $b = 72.56$ cm.

Answers

1. $B=18^\circ$, $C=27^\circ$, $b=20.43$ cm. 2. $A=43^\circ$, $B=8^\circ$, $a=35.95$ cm. 3. $B=82^\circ$, $C=52^\circ$, $c=37.55$ cm. 4. $B=122^\circ$, $a=1.83$ cm, $b=7.46$ cm. 5. $B=21^\circ$, $b=11.06$ cm, $c=29$ cm. 6. $A=168^\circ$, $B=2^\circ$, $a=33.67$ cm. 7. $B=87^\circ$, $C=50^\circ$, $b=9.16$ cm. 8. $B=44^\circ$, $a=36.94$ cm, $b=28.8$ cm. 9. $B=100^\circ$, $b=61.04$ cm, $c=23.22$ cm. 10. $A=70^\circ$, $B=27^\circ$, $b=10.86$ cm. 11. $B=27^\circ$, $C=68^\circ$, $b=9.14$ cm. 12. $A=35^\circ$, $C=55^\circ$, $c=31.74$ cm. 13. $B=14^\circ$, $C=19^\circ$, $b=30.86$ cm. 14. $A=150^\circ$, $a=39.28$ cm, $b=17.67$ cm. 15. $B=79^\circ$, $C=58^\circ$, $c=62.68$ cm.