

NAME: _____

P.I. A2.A.73: Solve for an unknown side or angle, using the Law of Sines

1. Given a triangle with $a = 20$, $C = 37^\circ$, and $B = 24^\circ$, what is the length of c ? Round the answer to two decimal places.

[A] 29.59 [B] 13.52
[C] 13.76 [D] 43.01

3. Given a triangle with $a = 7$, $C = 17^\circ$, and $B = 32^\circ$, what is the length of c ? Round the answer to two decimal places.

[A] 9.97 [B] 12.69 [C] 2.71 [D] 3.86

2. Given a triangle with $a = 8$, $C = 33^\circ$, and $B = 44^\circ$, what is the length of c ? Round the answer to two decimal places.

[A] 11.22 [B] 4.47 [C] 10.2 [D] 6.27

4. Solve triangle ABC given that $A = 50^\circ$, $B = 44^\circ$, and $b = 68$.

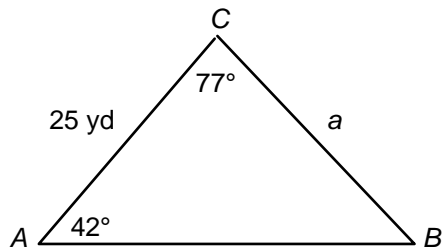
5. Solve triangle ABC given that $A = 57^\circ$, $B = 43^\circ$, and $b = 69$.

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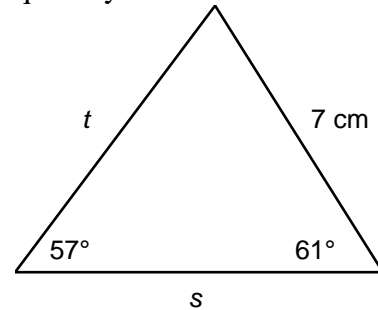
6. Solve triangle ABC given that $A = 43^\circ$, $B = 46^\circ$, and $b = 64$.

7. Solve triangle ABC given that $A = 45^\circ$, $B = 46^\circ$, and $b = 74$.

8. Find the missing measure a in this drawing.
Round your answer to the nearest hundredth.



9. Compare the quantity in Column A with the quantity in Column B.



<u>Column A</u>	<u>Column B</u>
$\frac{s}{\sin 62^\circ}$	$\frac{t}{\sin 61^\circ}$

- [A] The quantity in Column A is greater.
[B] The quantity in Column b is greater.
[C] The two quantities are equal.
[D] The relationship cannot be determined on the basis of the information supplied.

[1] C

[2] B

[3] C

[4] $C = 86^\circ, a = 74.99, c = 97.65$

[5] $C = 80^\circ, a = 84.85, c = 99.64$

[6] $C = 91^\circ, a = 60.68, c = 88.96$

[7] $C = 89^\circ, a = 72.74, c = 102.86$

[8] 19.13 in.

[9] C