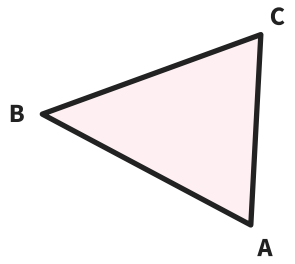
The Sine Rule: Finding a Side

1

Label the sides a, b and c.

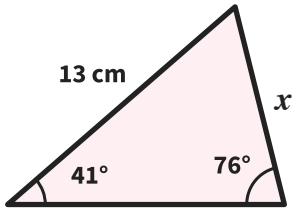


a is ☐ b is ☐

c is _____

2 Opposite sides and angles pair up.

Find x to 1 decimal place.



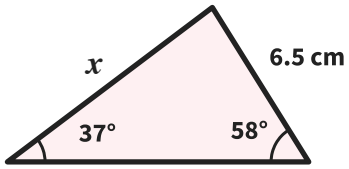
$$\frac{x}{\sin\square^\circ} = \frac{13}{\sin 76^\circ}$$

_____

x = _____

3

Find x to 1 decimal place.



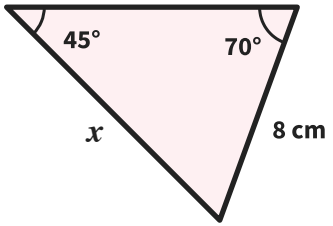
$$\frac{x}{\sin\square^\circ} = \frac{6.5}{\sin\square^\circ}$$

_____

x = _____

4

Find x to 1 decimal place.



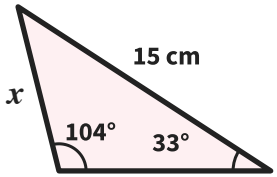
$$\frac{x}{\sin\square^\circ} = \frac{\square}{\sin\square^\circ}$$

_____

x = _____

5

Find x to 1 decimal place.



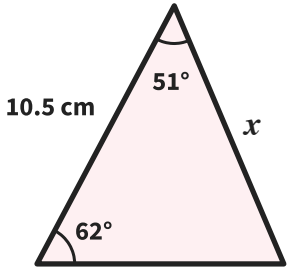
_____

_____

x = _____

6 *Notice the change!*

Find x to 1 decimal place.



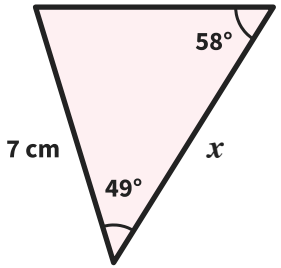
_____

_____

x = _____

7

Find x to 1 decimal place.



_____

_____

x = _____

8

In triangle PQR, angle P = 47°, angle Q = 81° and QR = 12 cm. Find PR to 1 decimal place.

_____

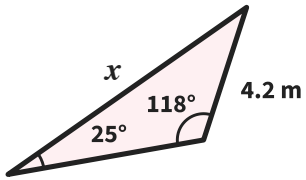
_____

PR = _____

The Sine Rule: Finding a Side *further practice*

9

Find x to 1 decimal place.



x = _____

10

In triangle ABC, angle A = 39°, angle C = 102° and AB = 20 cm. Find BC to 1 decimal place.

BC = _____

11

In triangle XYZ, angle X = 54°, angle Y = 71° and XY = 9 cm. Find YZ to 1 decimal place.

YZ = _____

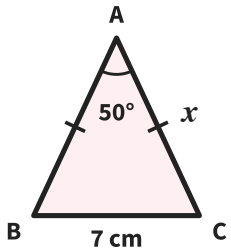
12

A park is the triangle ABC. The fence AB is 85 m long. Angle CAB = 57° and angle ABC = 44°. A straight path runs from B to C. How long is the path?
Give your answer to 1 decimal place.

Answer _____

13

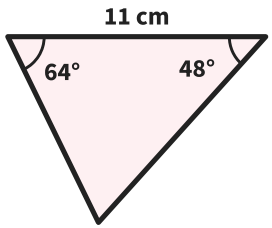
Triangle ABC is isosceles with AB = AC.
Find x to 1 decimal place.



x = _____

14

Find the perimeter of the triangle, to 1 decimal place.



Perimeter _____

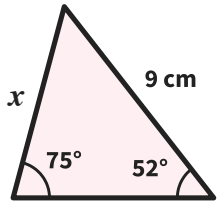
15

Amira and Kofi stand 50 m apart on a straight riverbank. Each looks at a post on the far bank. The line from Amira to the post makes 64° with the bank, and the line from Kofi makes 47°.
How wide is the river? Give your answer to 1 decimal place.

Width _____

16

Ella writes $\frac{x}{\sin 75°} = \frac{9}{\sin 52°}$ and gets 11.0 cm. Explain her mistake.
Then find x to 1 decimal place.



x = _____