

Trigonometry: Missing Sides, Mixed



Red



Amber

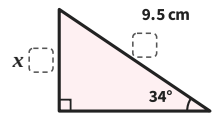


Green



1

Use **sin**. Find x to 1 decimal place.



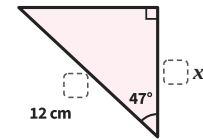
$$\sin \square^\circ = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

2

Use **cos**. Find x to 1 decimal place.



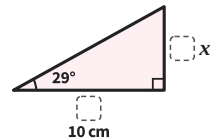
$$\cos \square^\circ = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

5

Pick the ratio. Then find x to 1 decimal place.



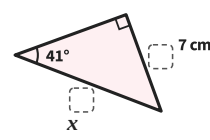
$$\frac{\square}{\square} = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

6

Pick the ratio. Then find x to 1 decimal place.



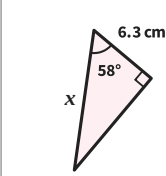
$$\frac{\square}{\square} = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

9

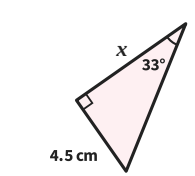
Find x to 1 decimal place.



$x =$ _____

10

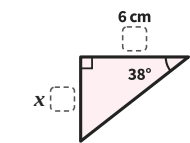
Find x to 1 decimal place.



$x =$ _____

3

Use **tan**. Find x to 1 decimal place.



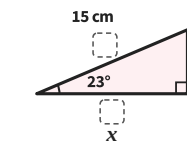
$$\tan \square^\circ = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

4

Use **cos**. Find x to 1 decimal place.



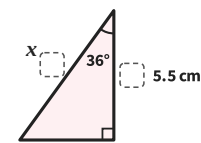
$$\cos \square^\circ = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

7

Pick the ratio. Then find x to 1 decimal place.



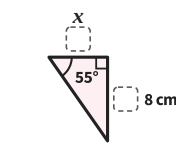
$$\frac{\square}{\square} = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

8

Pick the ratio. Then find x to 1 decimal place.



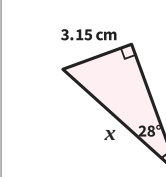
$$\frac{\square}{\square} = \frac{\square}{\square}$$

Make the unknown the subject of the formula.

$x =$ _____

11

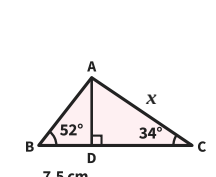
Find x to 1 decimal place.



$x =$ _____

12

Find AD first. Then find x to 1 decimal place.



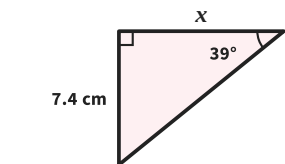
$x =$ _____

Trigonometry: Missing Sides, Mixed *further practice*



13

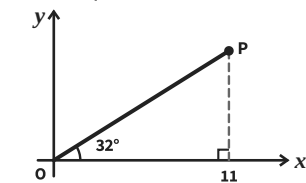
Find x to 1 decimal place.



$x =$ _____

14

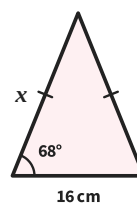
P is on a straight line from the origin O at 32° to the x axis. The x coordinate of P is 11. Find the length OP to 1 decimal place.



OP = _____

15

The triangle is isosceles. Find the length x to 1 decimal place.



$x =$ _____

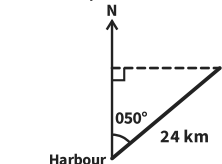
16

A zip wire runs in a straight line from the top of a 9 m tower down to the ground. It makes an angle of 14° with the level ground. How long is the zip wire? Give your answer to 1 decimal place.

Answer _____

17

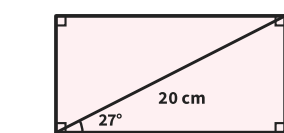
A boat sails 24 km in a straight line from a harbour on a bearing of 050° . How far north of the harbour is the boat? Give your answer to 1 decimal place.



Answer _____

18

The diagonal of this rectangle is 20 cm long. It makes an angle of 27° with the longer side. Find the perimeter of the rectangle to 1 decimal place.



Perimeter = _____

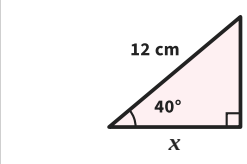
19

A tent pole stands upright and is 1.6 m tall. A straight rope goes from the top of the pole to a peg in the level ground. The rope makes an angle of 38° with the ground. Is a rope 2.5 m long enough? Show how you know.

Answer _____

20

Sam writes $\tan 40^\circ = \frac{x}{12}$, so $x = 10.1$ cm. Explain what Sam has done wrong. Then find x to 1 decimal place.



$x =$ _____