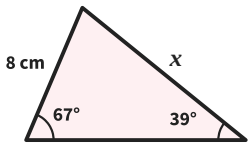
Sine Rule: Finding a Side

1

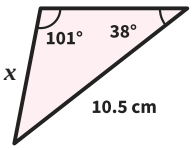
Write the sine rule with the numbers in.



$$\frac{x}{\sin 67^\circ} = \frac{\square}{\sin \square^\circ}$$

2

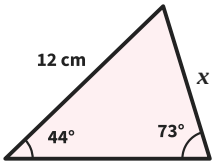
Write the sine rule with the numbers in.



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

3

Find x to 1 decimal place.

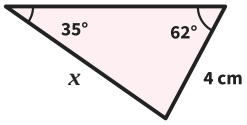


$$\frac{x}{\sin 44^\circ} = \frac{12}{\sin 73^\circ}$$

$x =$ _____

4

Find x to 1 decimal place.

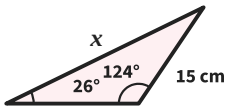


$$\frac{x}{\sin \square^\circ} = \frac{\square}{\sin \square^\circ}$$

$x =$ _____

5

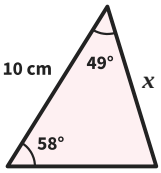
Find x to 1 decimal place.



$x =$ _____

6 *Notice the change!*

Find x to 1 decimal place.



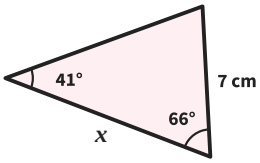
$180 - 58 - 49 = 73^\circ$

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

$x =$ _____

7

Find x to 1 decimal place.

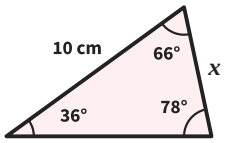


$x =$ _____

8

Ben writes $\frac{x}{\sin 66^\circ} = \frac{10}{\sin 78^\circ}$.

Explain his mistake. Then find x to 1 decimal place.

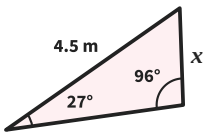


$x =$ _____

Sine Rule: Finding a Side *further practice*

9

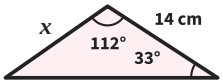
Find x to 1 decimal place.



$x =$ _____

10

Find x to 1 decimal place.



$x =$ _____

11

In triangle PQR, angle P = 52°, angle Q = 74° and QR = 11 cm. Find PR to 1 decimal place.

PR = _____

12

In triangle DEF, angle D = 35°, angle E = 103° and DF = 14 cm. Find DE to 1 decimal place.

DE = _____

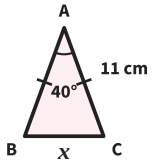
13

The door of a tent is a triangle.
Its base is 1.8 m wide. The angles at the two ends of the base are 62° and 70°.
Find the length of the longer sloping edge, to 1 decimal place.

Answer _____

14

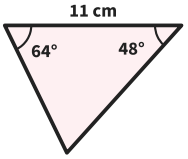
Triangle ABC is isosceles with AB = AC = 11 cm and angle A = 40°.
Find BC to 1 decimal place.



BC = _____

15

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



Perimeter _____

16

In triangle ABC, angle A = 30° and angle B = 90°. Mia says BC is always exactly half of AC. Is she right?
Show how you know.

Answer _____