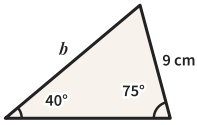


Sine rule and area



1

Find the side b , then the area of the triangle. Give each answer to 1 decimal place.



$$b = \frac{9 \sin 75^\circ}{\sin 40^\circ} = 13.5$$

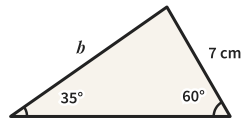
$$\text{Area} = \frac{1}{2} \times 9 \times 13.5 \times \sin 65^\circ$$

$$\text{Area} = \boxed{} \text{ cm}^2$$

Answer _____

2

Find the side b , then the area of the triangle. Give each answer to 1 decimal place.



$$b = \frac{7 \sin 60^\circ}{\sin 35^\circ} = 10.6$$

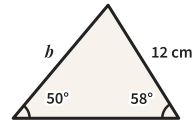
$$\text{Area} = \frac{1}{2} \times \boxed{} \times \boxed{} \times \sin \boxed{}$$

$$\text{Area} = \boxed{} \text{ cm}^2$$

Answer _____

3

Find the side b , then the area of the triangle. Give each answer to 1 decimal place.



$$b = \frac{\boxed{} \sin \boxed{}}{\sin \boxed{}} = \boxed{}$$

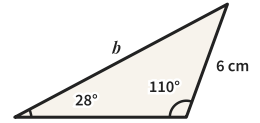
$$\text{Area} = \frac{1}{2} \times \boxed{} \times \boxed{} \times \sin \boxed{}$$

$$\text{Area} = \boxed{} \text{ cm}^2$$

Answer _____

4

Find the side b , then the area of the triangle. Give each answer to 1 decimal place.

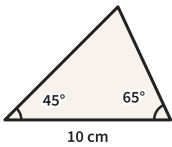


$$\text{Area} = \boxed{} \text{ cm}^2$$

Answer _____

5

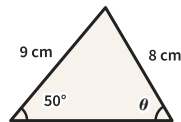
Find the area of this triangle. Give your answer to 1 decimal place.



Answer _____

6

Angle θ is acute. Find θ , then the area of the triangle.



Answer _____

7

A triangular field has one side of 80 m. The angles at each end of that side are 52° and 64° . Find the area of the field to the nearest square metre.

Answer _____

8

A triangle has angles of 40° , 60° and 80° . Its shortest side is 5 cm. Find its area to 1 decimal place.

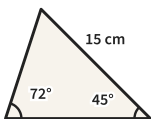
Answer _____

Sine rule and area *further practice*



9

Find the area of this triangle to 1 decimal place.



Answer _____

10

A plot of land is a triangle PQR . $PQ = 120$ m, angle $P = 48^\circ$ and angle $Q = 57^\circ$. Find its area to the nearest square metre.

Answer _____

11

In triangle ABC , $BC = 11$ cm, $AB = 9$ cm and angle $A = 62^\circ$. Find the area of the triangle.

Answer _____

12

A triangle has angles of 25° , 35° and 120° . Its longest side is 14 cm. Find its area to 1 decimal place.

Answer _____

13

Triangle ABC has an area of 50 cm^2 . Angle $A = 40^\circ$, angle $B = 75^\circ$ and angle $C = 65^\circ$. Find the length of AB .

Answer _____

14

$ABCD$ is a parallelogram. $AB = 9$ cm, angle $ABD = 32^\circ$ and angle $ADB = 49^\circ$. Find the area of the parallelogram.

Answer _____

15

A sail is a triangle. Its bottom edge is 3.2 m long and the angles at each end of the bottom edge are 70° and 45° . Find the area of the sail to 2 decimal places.

Answer _____

16

In this triangle Leo works out the area as $\frac{1}{2} \times 8 \times 10 \times \sin 50^\circ$. Explain his mistake and find the area.



Answer _____