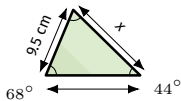


Start Tasks — Answers



Find x in each triangle: match each side with its opposite angle, then use the Sine Rule. Give each missing side to 1 decimal place.

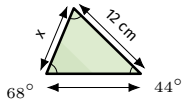
1.



Solution

$$\frac{x}{\sin 68^\circ} = \frac{9.5}{\sin 44^\circ}$$
$$x = \frac{9.5 \sin 68^\circ}{\sin 44^\circ}$$
$$x = 12.7 \text{ cm}$$

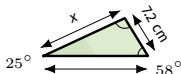
2.



Solution

$$\frac{x}{\sin 44^\circ} = \frac{12}{\sin 68^\circ}$$
$$x = \frac{12 \sin 44^\circ}{\sin 68^\circ}$$
$$x = 9.0 \text{ cm}$$

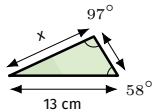
3.



Solution

$$\frac{x}{\sin 58^\circ} = \frac{12}{\sin 25^\circ}$$
$$x = \frac{12 \sin 58^\circ}{\sin 25^\circ}$$
$$x = 14.4 \text{ cm}$$

4.



Solution

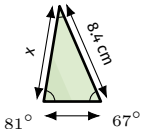
$$\frac{x}{\sin 58^\circ} = \frac{13}{\sin 97^\circ}$$
$$x = \frac{13 \sin 58^\circ}{\sin 97^\circ}$$
$$x = 11.1 \text{ cm}$$

Start Tasks — Answers



Find x in each triangle. Write the known opposite pair first, then rearrange the Sine Rule before calculating.

5.



Solution

$$\frac{x}{\sin 67^\circ} = \frac{8.4}{\sin 81^\circ}$$
$$x = \frac{8.4 \sin 67^\circ}{\sin 81^\circ}$$
$$x = 7.8 \text{ cm}$$

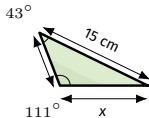
6.



Solution

$$\frac{x}{\sin 81^\circ} = \frac{11}{\sin 33^\circ}$$
$$x = \frac{11 \sin 81^\circ}{\sin 33^\circ}$$
$$x = 19.9 \text{ cm}$$

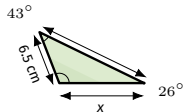
7.



Solution

$$\frac{x}{\sin 43^\circ} = \frac{15}{\sin 111^\circ}$$
$$x = \frac{15 \sin 43^\circ}{\sin 111^\circ}$$
$$x = 11.0 \text{ cm}$$

8.



Solution

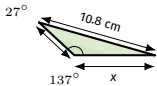
$$\frac{x}{\sin 43^\circ} = \frac{6.5}{\sin 26^\circ}$$
$$x = \frac{6.5 \sin 43^\circ}{\sin 26^\circ}$$
$$x = 10.1 \text{ cm}$$

Start Tasks — Answers



Find x in each triangle. Check that the larger side is opposite the larger angle, and round only your final answer.

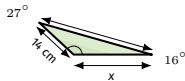
9.



Solution

$$\frac{x}{\sin 27^\circ} = \frac{10.8}{\sin 137^\circ}$$
$$x = \frac{10.8 \sin 27^\circ}{\sin 137^\circ}$$
$$x = 7.2 \text{ cm}$$

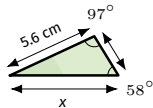
10.



Solution

$$\frac{x}{\sin 27^\circ} = \frac{14}{\sin 16^\circ}$$
$$x = \frac{14 \sin 27^\circ}{\sin 16^\circ}$$
$$x = 23.1 \text{ cm}$$

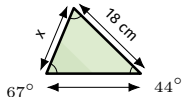
11.



Solution

$$\frac{x}{\sin 97^\circ} = \frac{5.6}{\sin 58^\circ}$$
$$x = \frac{5.6 \sin 97^\circ}{\sin 58^\circ}$$
$$x = 6.6 \text{ cm}$$

12.



Solution

$$\frac{x}{\sin 44^\circ} = \frac{18}{\sin 67^\circ}$$
$$x = \frac{18 \sin 44^\circ}{\sin 67^\circ}$$
$$x = 13.6 \text{ cm}$$