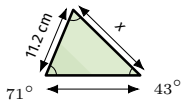


Build Tasks — Answers



Find x in each triangle: choose the complete opposite pair, then give each missing side to 1 decimal place.

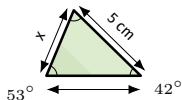
1.



Solution

$$\frac{x}{\sin 71^\circ} = \frac{11.2}{\sin 43^\circ}$$
$$x = \frac{11.2 \sin 71^\circ}{\sin 43^\circ}$$
$$x = 15.5 \text{ cm}$$

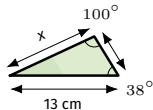
2.



Solution

$$\frac{x}{\sin 42^\circ} = \frac{5}{\sin 53^\circ}$$
$$x = \frac{5 \sin 42^\circ}{\sin 53^\circ}$$
$$x = 4.2 \text{ cm}$$

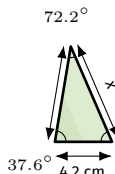
3.



Solution

$$\frac{x}{\sin 38^\circ} = \frac{13}{\sin 100^\circ}$$
$$x = \frac{13 \sin 38^\circ}{\sin 100^\circ}$$
$$x = 8.1 \text{ cm}$$

4.



Solution

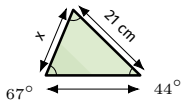
$$\frac{x}{\sin 37.6^\circ} = \frac{4.2}{\sin 72.2^\circ}$$
$$x = \frac{4.2 \sin 37.6^\circ}{\sin 72.2^\circ}$$
$$x = 2.7 \text{ cm}$$

Build Tasks — Answers



Find x in each triangle. Show the substitution line and use full calculator values until the final rounding step.

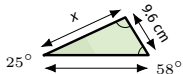
5.



Solution

$$\frac{x}{\sin 44^\circ} = \frac{21}{\sin 67^\circ}$$
$$x = \frac{21 \sin 44^\circ}{\sin 67^\circ}$$
$$x = 15.8 \text{ cm}$$

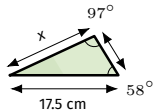
6.



Solution

$$\frac{x}{\sin 58^\circ} = \frac{9.6}{\sin 25^\circ}$$
$$x = \frac{9.6 \sin 58^\circ}{\sin 25^\circ}$$
$$x = 19.3 \text{ cm}$$

7.



Solution

$$\frac{x}{\sin 58^\circ} = \frac{17.5}{\sin 97^\circ}$$
$$x = \frac{17.5 \sin 58^\circ}{\sin 97^\circ}$$
$$x = 15.0 \text{ cm}$$

8.



Solution

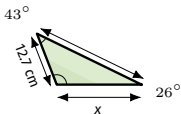
$$\frac{x}{\sin 81^\circ} = \frac{8.3}{\sin 33^\circ}$$
$$x = \frac{8.3 \sin 81^\circ}{\sin 33^\circ}$$
$$x = 15.1 \text{ cm}$$

Build Tasks — Answers



Find x in each triangle using the angle information in the diagram; include units and an accuracy statement.

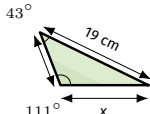
9.



Solution

$$\frac{x}{\sin 43^\circ} = \frac{12.7}{\sin 26^\circ}$$
$$x = \frac{12.7 \sin 43^\circ}{\sin 26^\circ}$$
$$x = 19.8 \text{ cm}$$

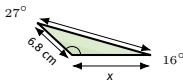
10.



Solution

$$\frac{x}{\sin 43^\circ} = \frac{19}{\sin 111^\circ}$$
$$x = \frac{19 \sin 43^\circ}{\sin 111^\circ}$$
$$x = 13.9 \text{ cm}$$

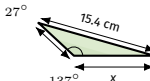
11.



Solution

$$\frac{x}{\sin 27^\circ} = \frac{6.8}{\sin 16^\circ}$$
$$x = \frac{6.8 \sin 27^\circ}{\sin 16^\circ}$$
$$x = 11.2 \text{ cm}$$

12.



Solution

$$\frac{x}{\sin 27^\circ} = \frac{15.4}{\sin 137^\circ}$$
$$x = \frac{15.4 \sin 27^\circ}{\sin 137^\circ}$$
$$x = 10.3 \text{ cm}$$