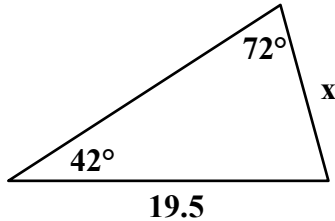


Precalculus Worksheet #1 Unit 6 Selected Solutions

Solve for x . Express your solutions rounded to 3 significant digits. Show your work neatly organized. The diagrams are not drawn to scale.

1. $x = \underline{13.7}$

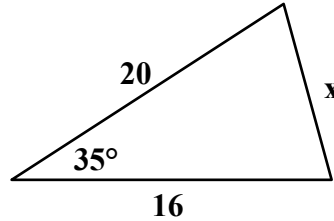


$$\frac{\sin 42^\circ}{x} = \frac{\sin 72^\circ}{19.5}$$

$$x \sin 72^\circ = 19.5 \sin 42^\circ$$

$$x = \frac{19.5 \sin 42^\circ}{\sin 72^\circ} \approx 13.7$$

2. $x = \underline{11.5}$



$$x^2 = 20^2 + 16^2 - 2(20)(16) \cos 35^\circ$$

$$x^2 = 400 + 256 - 640 \cos 35^\circ$$

$$x^2 = 656 - 640 \cos 35^\circ$$

$$x^2 \approx 131.74$$

$$x \approx 11.5$$