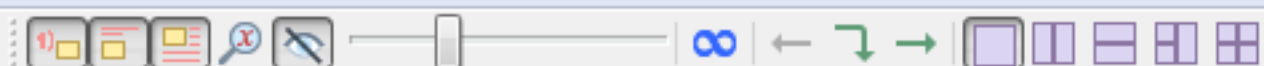
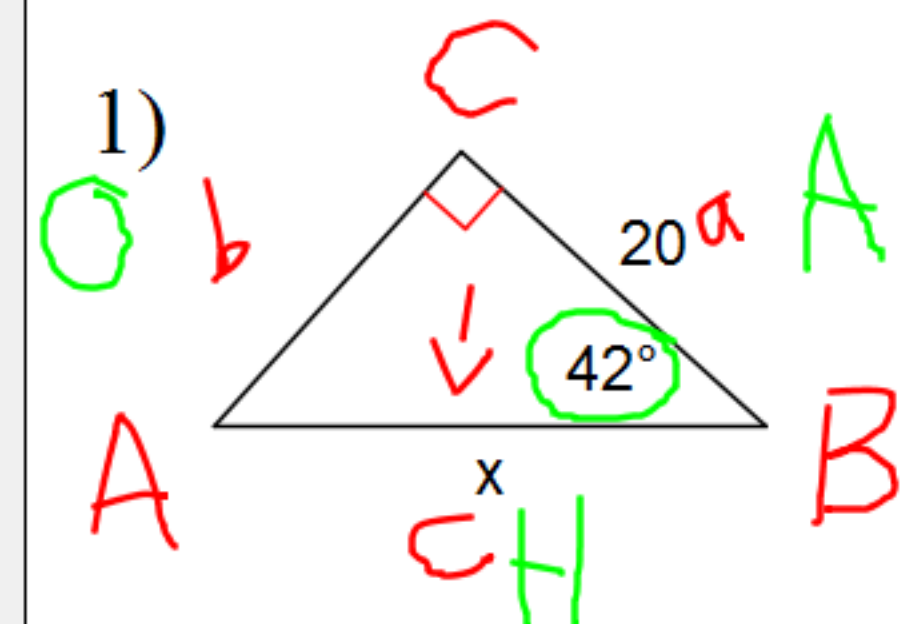


Solving all sides  
and all angles



Solve the triangle. Communicate your solution carefully. Side: nearest tenth. Angle: nearest degree.



$$\angle A = 48^\circ$$

$$a = 20$$

$$\angle B = 42^\circ$$

$$b = 18$$

$$\angle C = 90^\circ$$

$$c = 26.9$$

$$\textcircled{1} \angle A = 180 - 42 - 90$$

$$\angle A = 48^\circ$$

$$\textcircled{2} \cos \theta = \frac{A}{c}$$

$$\cos 42 = \frac{20}{c}$$

$$20 = (\cos 42)(c) \quad c = 26.9$$

$$\textcircled{2} \text{SOHCAHTOA}$$

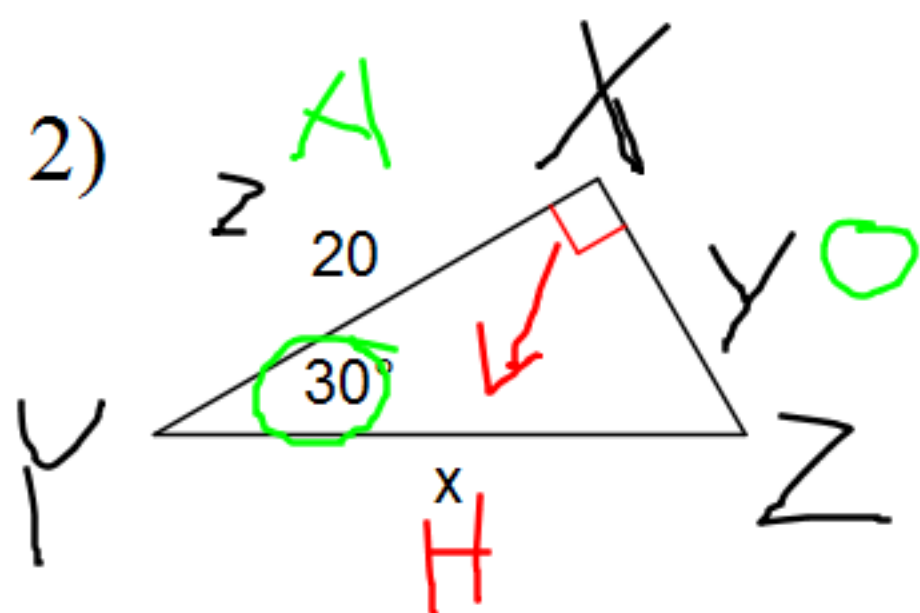
$$\tan \theta = \frac{O}{A}$$

$$\tan 42 = \frac{b}{20}$$

$$b = (\tan 42)(20)$$

$$b = 18$$

Solve the triangle. Communicate your solution carefully. Side: nearest tenth. Angle: nearest degree.



$$\angle X = 90^\circ$$

$$x = 23.1$$

$$\angle Y = 30^\circ$$

$$y = 11.6$$

$$\angle Z = 60^\circ$$

$$z = 20$$

$$\textcircled{1} \angle Z = 180 - 90 - 30$$

$$\angle Z = 60^\circ$$

$$\textcircled{3} a^2 + b^2 = c^2$$

$$20^2 + y^2 = 23.1^2$$

$$400 + y^2 = 533.6 \quad -400$$

$$\sqrt{y^2} = \sqrt{133.6} \quad y = 11.6$$

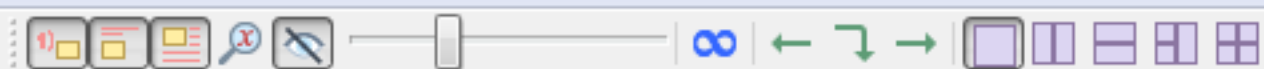
②

$$\cos \theta = \frac{A}{H}$$

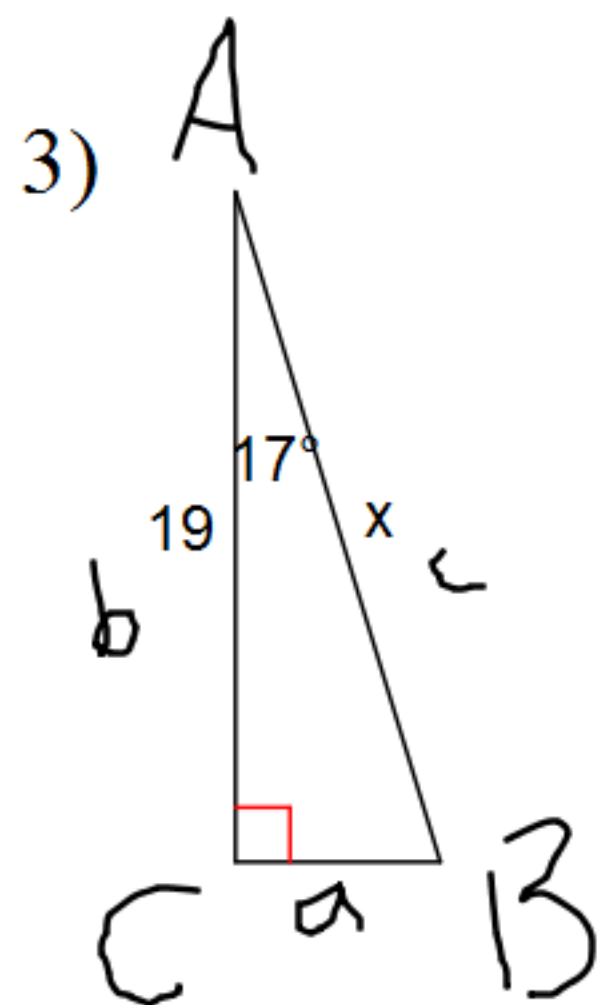
$$\frac{\cos 30}{1} = \frac{20}{x}$$

$$\frac{20}{\cos 30} = \frac{(\cos 30)(x)}{\cos 30}$$

$$23.1 = x$$



Solve the triangle. Communicate your solution carefully. Side: nearest tenth. Angle: nearest degree.



$$\angle A =$$

$$\angle B =$$

$$\angle C =$$

$$a =$$

$$b =$$

$$c =$$