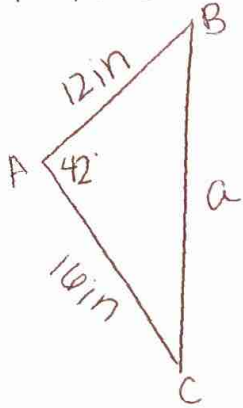
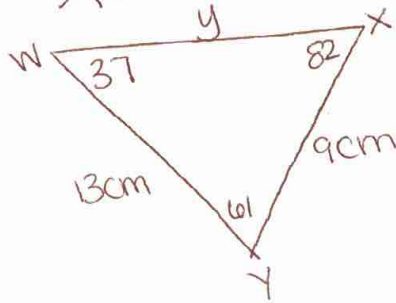


WARM UP

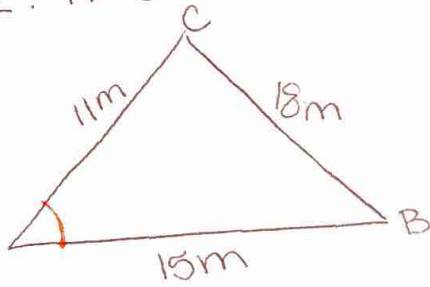
1. find a



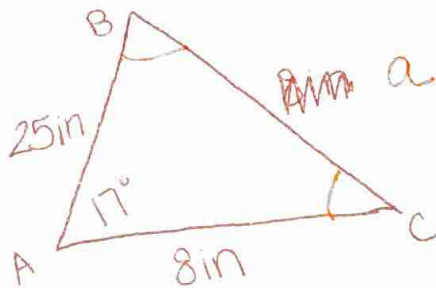
3. find y



2. find ~~cos~~ $\angle A$



4. solve the triangle



$$1. a^2 = 12^2 + 16^2 - 2(12)(16)\cos 42$$

$$a^2 = 114.4$$

$$a = 10.7 \text{ in}$$

$$2. 18^2 = 11^2 + 15^2 - 2(11)(15)\cos A$$

$$-22 = -330\cos A$$

$$0.07 = \cos A$$

$$86.2^\circ = A$$

$$3. \frac{\sin 37}{9} = \frac{\sin 61}{y}$$

$$y \sin 37 = 9 \sin 61$$

$$y = \frac{9 \sin 61}{\sin 37}$$

$$y = 13.1 \text{ cm}$$

$$4. a^2 = 8^2 + 25^2 - 2(8)(25)\cos 17$$

$$a^2 = 306.5$$

$$a = 17.5 \text{ in}$$

$$\frac{\sin 17}{17.5} = \frac{\sin B}{8}$$

$$8 \sin 17 = 17.5 \sin B$$

$$0.13 = \sin B$$

$$7.7^\circ = B$$

$$a = 17.5 \text{ in}$$

$$\angle B = 7.7^\circ$$

$$\angle C = 155.3^\circ$$