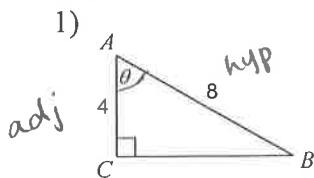


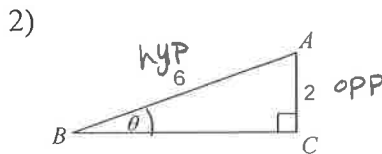
WS PC #3 Review Unit 8/9

Find the measure of each angle indicated. Round to the nearest tenth.



$$m\angle A = \cos^{-1}\left(\frac{4}{8}\right)$$

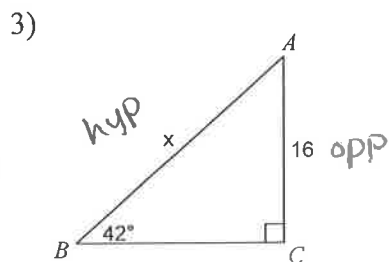
$$m\angle A = 60^\circ$$



$$m\angle B = \sin^{-1}\left(\frac{2}{6}\right)$$

$$m\angle B = 19.5^\circ$$

Find the measure of each side indicated. Round to the nearest tenth.

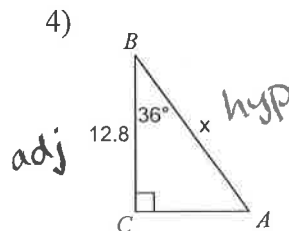


$$\sin(42) = \frac{16}{x}$$

$$x \sin(42) = 16$$

$$\frac{x \sin(42)}{\sin(42)} = \frac{16}{\sin(42)}$$

$$x = 23.9$$



$$\cos(36) = \frac{12.8}{x}$$

$$x \cos(36) = 12.8$$

$$\frac{x \cos(36)}{\cos(36)} = \frac{12.8}{\cos(36)}$$

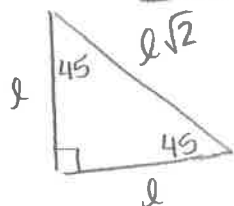
$$x = 15.8$$

5) Using a special right triangle, find each trig ratio (in simplest radical form).

a)  $\sin 45 = \frac{k}{2\sqrt{2}}$

$$= \frac{1 \cdot \sqrt{2}}{\sqrt{2} \cdot \sqrt{2}}$$

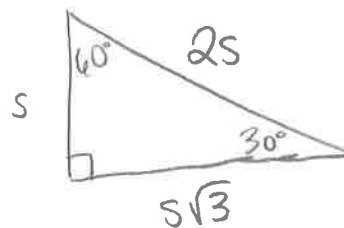
$$= \frac{\sqrt{2}}{2}$$



b)  $\cos 30 = \frac{\sqrt{3}}{2}$

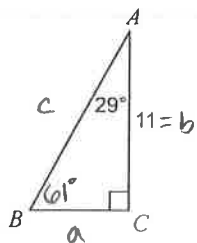
$$= \frac{\sqrt{3}}{2}$$

c)  $\tan 60 = \frac{\sqrt{3}}{1} = \sqrt{3}$



Solve each triangle. Round answers to the nearest tenth.

6)



$$m\angle A = 29^\circ$$

$$m\angle B = 61^\circ$$

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

$$a = 6.1$$

$$b = 11$$

$$c = 12.6$$

$$\tan(29) = \frac{a}{11}$$

$$a = 11 \tan(29)$$

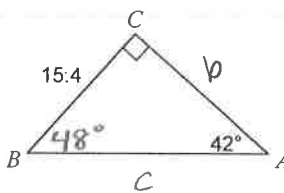
$$a = 6.1$$

$$\cos(29) = \frac{11}{c}$$

$$\frac{c \cos(29)}{\cos(29)} = \frac{11}{\cos(29)}$$

$$c = 12.6$$

7)



$$m\angle A = 42^\circ$$

$$m\angle B = 48^\circ$$

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

$$a = 15.4$$

$$b = 17.1$$

$$c = 23.0$$

$$\sin(42) = \frac{15.4}{c}$$

$$\frac{c \sin(42)}{\sin(42)} = \frac{15.4}{\sin(42)}$$

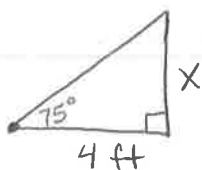
$$c = 23.0$$

$$\tan(42) = \frac{15.4}{b}$$

$$b = \frac{15.4}{\tan(42)}$$

$$b = 17.1$$

8) The angle of elevation between the bottom of a fence and the top of a tree is 75 degrees. The tree is 4 feet from the fence. How tall is the tree? Round your answer to the nearest foot.



$$\tan(75) = \frac{x}{4}$$

$$x = 4 \tan(75)$$

$$x = 15 \text{ feet}$$