

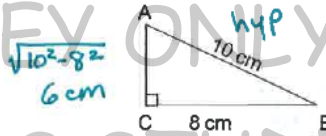
HW4W 2 sin, cos, and tan

Name: Jones

Find the missing side of each right triangle to the nearest tenth. Write each trig ratio as a fraction, no need to simplify fractional answers.

SOHCAHTOA

1.



a. $\sin A = \frac{8}{10}$

b. $\cos A = \frac{16}{10}$

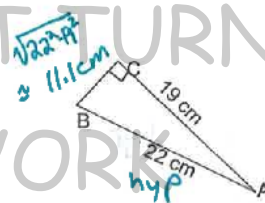
c. $\sin B = \frac{16}{10}$

d. $\cos B = \frac{10}{8}$

e. $\tan A = \frac{8}{16}$

f. $\tan B = \frac{16}{8}$

3.



m. $\sin A = \frac{11.1}{22}$

n. $\cos B = \frac{11.1}{22}$

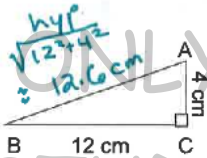
o. $\sin B = \frac{19}{22}$

p. $\cos A = \frac{19}{22}$

q. $\tan B = \frac{19}{11.1}$

r. $\tan A = \frac{11.1}{19}$

2.



g. $\sin A = \frac{12}{12.6}$

h. $\cos A = \frac{4}{12.6}$

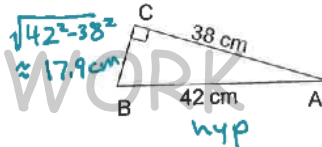
i. $\sin B = \frac{4}{12.6}$

j. $\cos B = \frac{12}{12.6}$

k. $\tan A = \frac{12}{4}$

l. $\tan B = \frac{4}{12}$

4.



s. $\sin A = \frac{17.9}{42}$

t. $\cos B = \frac{17.9}{42}$

u. $\sin B = \frac{38}{42}$

v. $\cos A = \frac{38}{42}$

w. $\tan A = \frac{17.9}{38}$

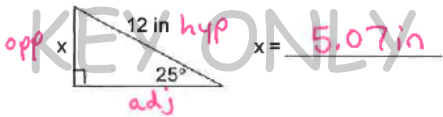
x. $\tan B = \frac{38}{17.9}$

HW4W 3 Find the Missing Side

Name: Jones

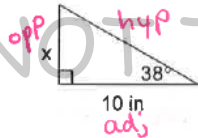
Follow the directions as given below for each problem. Round answers to 2 decimal places. Calc in degrees! SOH CAH TOA

1.



$x = 5.07 \text{ in}$

2.



$x = 7.81 \text{ in}$

- a. Label all sides of the triangle using the marked angle.
- b. Using the side given and the side we are looking for we will use sin.
- c. Set up the trig ratio and solve. Show work.

$$\sin 25^\circ = \frac{x}{12}$$

$$1x = 12 \sin 25^\circ$$

$$x \approx 5.07 \text{ in}$$

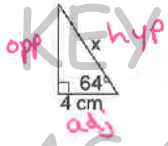
- a. Label all sides of the triangle using the marked angle.
- b. Using the side given and the side we are looking for we will use tan.
- c. Set up the trig ratio and solve. Show work.

$$\tan 38^\circ = \frac{x}{10}$$

$$1x = 10 \tan 38^\circ$$

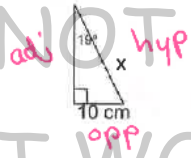
$$x \approx 7.81 \text{ in}$$

3.



$x = 9.12 \text{ cm}$

4.



$x = 30.72 \text{ cm}$

- a. Label all sides of the triangle using the marked angle.
- b. Using the side given and the side we are looking for we will use cos.
- c. Set up the trig ratio and solve. Show work.

$$\cos 64^\circ = \frac{4}{x}$$

$$x \cos 64^\circ = 4 \cdot 1$$

$$x \frac{\cos 64^\circ}{\cos 64^\circ} = \frac{4}{\cos 64^\circ}$$

$$x \approx 9.12 \text{ cm}$$

- a. Label all sides of the triangle using the marked angle.
- b. Using the side given and the side we are looking for we will use sin.
- c. Set up the trig ratio and solve. Show work.

$$\sin 19^\circ = \frac{10}{x}$$

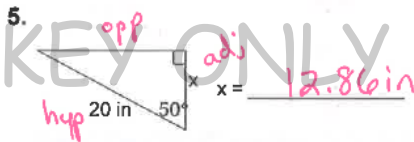
$$x \sin 19^\circ = \frac{10}{\sin 19^\circ}$$

$$x = \frac{10}{\sin 19^\circ} \quad x \approx 30.72 \text{ cm}$$

HW4W 3 Find the Missing Side

Name: CJA

Follow the directions as given below for each problem. Round answers to 2 decimal places. SOH CAH TOA

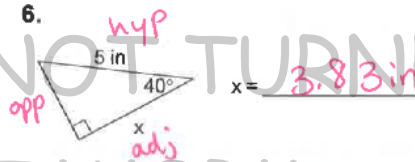


- Label all sides of the triangle using the marked angle.
- Using the side given and the side we are looking for we will use cos.
- Set up the trig ratio and solve. Show work.

$$\frac{\cos 50^\circ}{1} = \frac{x}{20}$$

$$x = 20 \cos 50^\circ$$

$$x \approx 12.86 \text{ in}$$

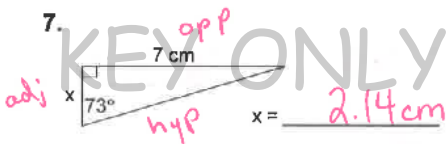


- Label all sides of the triangle using the marked angle.
- Using the side given and the side we are looking for we will use cos.
- Set up the trig ratio and solve. Show work.

$$\frac{\cos 40^\circ}{1} = \frac{x}{5}$$

$$x = 5 \cos 40^\circ$$

$$x \approx 3.83 \text{ in}$$

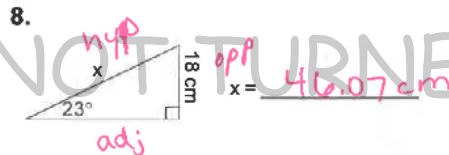


- Label all sides of the triangle using the marked angle.
- Using the side given and the side we are looking for we will use tan.
- Set up the trig ratio and solve.

$$\frac{\tan 73^\circ}{1} = \frac{7}{x}$$

$$\frac{x \tan 73^\circ}{\tan 73^\circ} = \frac{7}{\tan 73^\circ}$$

$$x = \frac{7}{\tan 73^\circ} \quad x \approx 2.14 \text{ cm}$$



- Label all sides of the triangle using the marked angle.
- Using the side given and the side we are looking for we will use sin.
- Set up the trig ratio and solve.

$$\frac{\sin 23^\circ}{1} = \frac{18}{x}$$

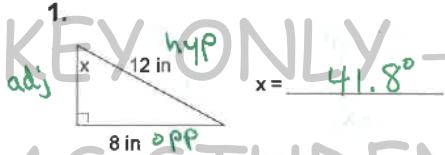
$$\frac{x \sin 23^\circ}{\sin 23^\circ} = \frac{18}{\sin 23^\circ}$$

$$x = \frac{18}{\sin 23^\circ} \quad x \approx 46.07 \text{ cm}$$

HW4W 4 Find the Missing Anlge (or side)

Name: Jones

Follow the directions as given below for each problem. Round answers to 1 decimal place. Calc in degrees! SOH CAH TOA



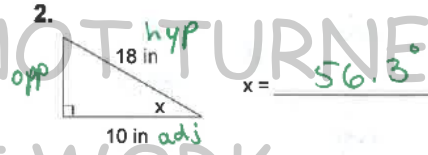
- a. Label all sides of the triangle using the marked angle.
b. Using the sides given we will use sin.

c. Set up the trig ratio and solve. Show work.

$$\sin x = \frac{8}{12}$$

$$x = \sin^{-1}\left(\frac{8}{12}\right)$$

$$x \approx 41.8^\circ$$



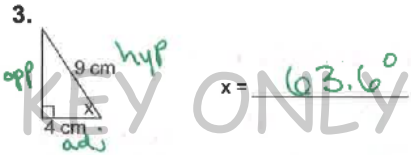
- g. Label all sides of the triangle using the marked angle.
h. Using the sides given we will use cos.

i. Set up the trig ratio and solve. Show work.

$$\cos x = \frac{10}{18}$$

$$x = \cos^{-1}\left(\frac{10}{18}\right)$$

$$x \approx 56.3^\circ$$



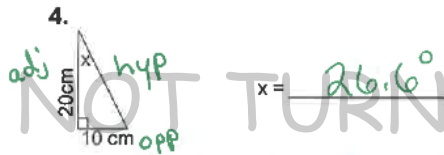
- d. Label all sides of the triangle using the marked angle.
e. Using the sides given we will use cos.

f. Set up the trig ratio and solve. Show work.

$$\cos x = \frac{4}{9}$$

$$x = \cos^{-1}\left(\frac{4}{9}\right)$$

$$x \approx 63.6^\circ$$



- j. Label all sides of the triangle using the marked angle.
k. Using the sides given we will use tan.

l. Set up the trig ratio and solve. Show work.

$$\tan x = \frac{10}{20}$$

$$x = \tan^{-1}\left(\frac{10}{20}\right)$$

$$x \approx 26.6^\circ$$

