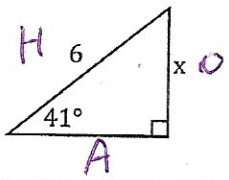
$\sin x = \frac{O}{H}$ $\cos x = \frac{A}{H}$ $\tan x = \frac{O}{A}$ Soh Cah Toa

Ch8.4 I Name: Key (Part 1) Class: _____

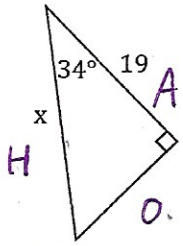
Label each triangle with "O" for opposite, "A" for adjacent, and "H" for hypotenuse. Then solve for x.

1. Step 1. Label the sides. Step 2. Choose the ratio and write it out. Step 3. Plug in and solve.



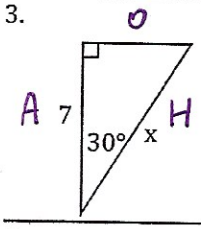

$\sin X^\circ = \frac{O}{H}$ $\sin 41 = \frac{x}{6}$ $6(\sin 41) = x$ $3.94 = x$

2.



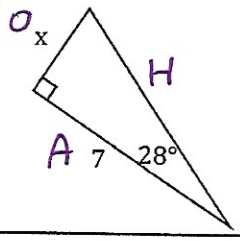

$\cos X^\circ = \frac{A}{H}$ $\cos 34^\circ = \frac{19}{x}$ $x = \frac{19}{\cos 34^\circ}$ $x = 22.92$

3.



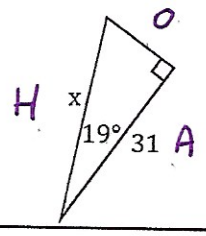

$\cos X^\circ = \frac{A}{H}$ $\cos 30^\circ = \frac{7}{x}$ $x = \frac{7}{\cos 30^\circ}$ $x = 8.08$

4.



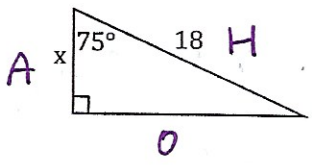

$\tan X^\circ = \frac{O}{A}$ $\tan 28^\circ = \frac{x}{7}$ $7 \tan 28^\circ = x$ $x = 3.72$

5.




$\cos x = \frac{A}{H}$ $\cos 19 = \frac{31}{x}$ $x = \frac{31}{\cos 19}$ $x = 32.79$

6.




$\cos X = \frac{A}{H}$ $\cos 75 = \frac{x}{18}$ $18 \cos 75 = x$ $x = 4.66$



Bubble all the correct answers from above. Don't bubble incorrect answers.

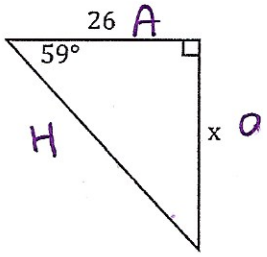
●3.72 ○3.18 ●8.08 ●3.94 ●22.92 ○23.75° ○5.36 ○31.56 ●4.66 ●32.79

$\sin X = \frac{O}{H}$ Soa Cah Toa

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

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

7.



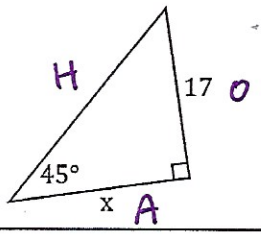

$\tan X = \frac{O}{A}$

$\tan 59 = \frac{x}{26}$

$26 \tan 59 = X$

$X =$ 43.27

8.



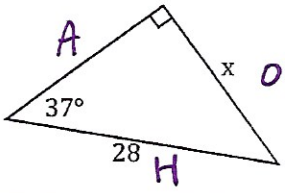

$\tan X = \frac{O}{A}$

$\tan 45 = \frac{17}{x}$

$x = \frac{17}{\tan 45}$

$X =$ 17

9.



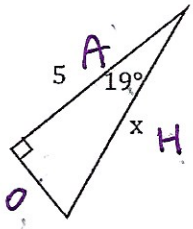

$\sin X = \frac{O}{H}$

$\sin 37 = \frac{x}{28}$

$28 \sin 37 = X$

$X =$ 16.85

10.



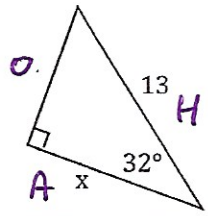

$\cos X = \frac{A}{H}$

$\cos 19 = \frac{5}{x}$

$x = \frac{5}{\cos 19}$

$X =$ 5.29

11.



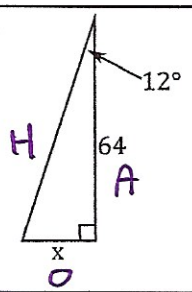

$\cos X = \frac{A}{H}$

$\cos 32 = \frac{x}{13}$

$13 \cos 32 = X$

$X =$ 11.02

12.




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

$\tan 12 = \frac{x}{64}$

$64 \tan 12 = X$

$X =$ 13.60



Bubble all the correct answers from above. Don't bubble incorrect answers.

- ● 17
- ● 5.29
- ● 13.61
- ● 43.27
- ○ 38.19
- ○ 16.85
- ● 16.48
- ○ 5.64
- ● 11.02
- ○ 13.25