SOH CAH TOA

Geometry B

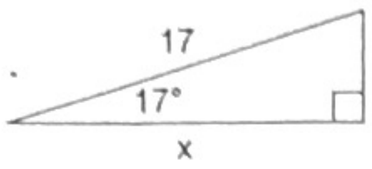
Name Key

Worksheet E

Date _____ Block ____

Find the missing side. Round to the nearest tenth.

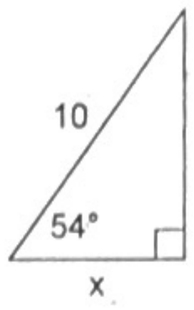
1)



$\cos 17 = \frac{x}{17}$

$x = 16.26$

2)



$\cos 54 = \frac{x}{10}$

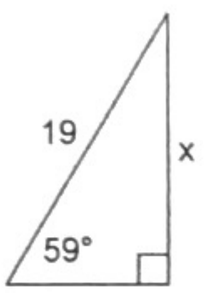
$\frac{10}{1} \cdot .5878 = \frac{x}{10} \cdot \frac{10}{1}$

$x = 5.88$

Steps

1) choose trig function
2) write Equation
3) Calculate trig
4) Solve

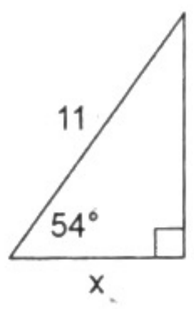
3)



$\sin 59 = \frac{x}{19}$

$x = 16.29$

4)

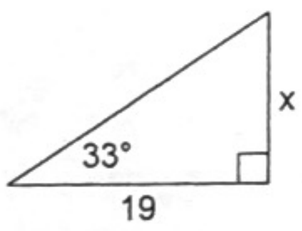


$\cos 54 = \frac{x}{11}$

$\frac{11}{1} \cdot .5878 = \frac{x}{11} \cdot \frac{11}{1}$

$x = 6.47$

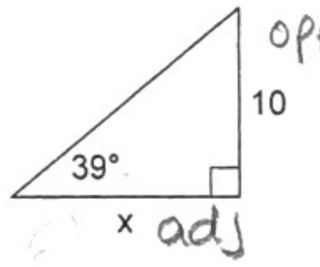
5)



$\tan 33 = \frac{x}{19}$

$x = 12.34$

6)



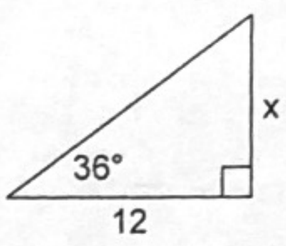
$\tan 39 = \frac{10}{x}$

$\frac{x}{1} \cdot .8098 = \frac{10}{x} \cdot \frac{x}{1}$

$\frac{.8098x}{.8098} = \frac{10}{.8098}$

$x = 12.35$

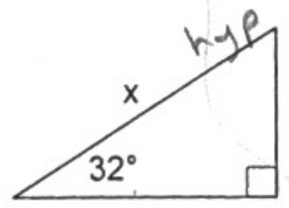
7)



$\tan 36 = \frac{x}{12}$

$x = 8.72$

8)



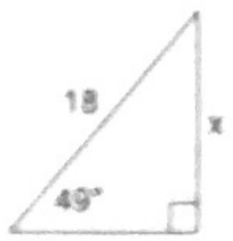
$\sin 32 = \frac{14}{x}$

$\frac{x}{1} \cdot .5299 = \frac{14}{x} \cdot \frac{x}{1}$

$\frac{.5299x}{.5299} = \frac{14}{.5299}$

$x = 26.42$

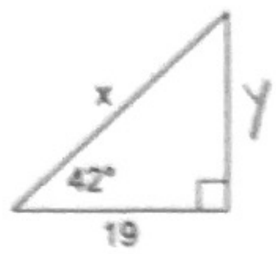
9)



$\sin 49 = \frac{x}{18}$

$x = 13.59$

10)



x 57

$\cos 42 = \frac{19}{x}$

$\frac{x}{1} \cdot .743 = \frac{19}{x} \frac{x}{1}$

$x = 25.57$

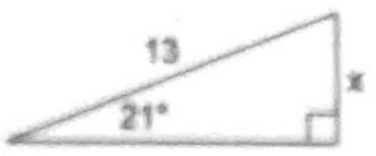
y 21.21

$\tan 42 = \frac{y}{19}$

$.900 = \frac{y}{19}$

$y = 17.11$

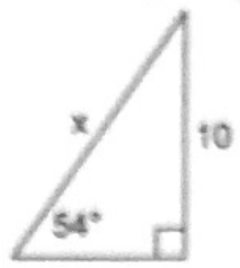
11)



$\sin 21 = \frac{x}{13}$

$x = 4.66$

12)



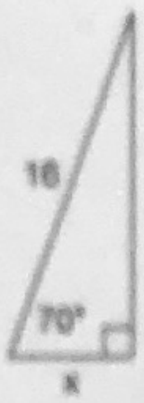
$\sin 54 = \frac{10}{x}$

$\frac{x}{1} \cdot .809 = \frac{10}{x} \cdot \frac{x}{1}$

$\frac{.809x}{.809} = \frac{10}{.809}$

$x = 12.36$

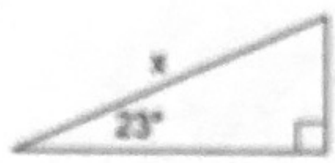
13)



$\cos 70 = \frac{x}{16}$

$x = 5.47$

14)



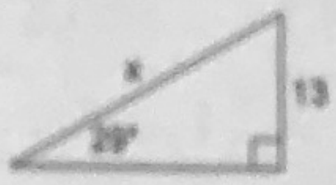
$\sin 23 = \frac{16}{x}$

$\frac{x}{1} \cdot .3907 = \frac{16}{x} \frac{x}{1}$

$\frac{.3907x}{.3907} = \frac{16}{.3907}$

$x = 40.95$

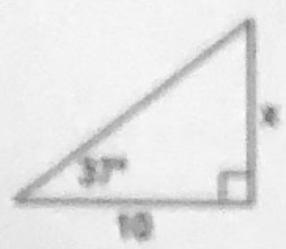
15)



$\sin 29 = \frac{13}{x}$

$x = 26.82$

16)



$\tan 37 = \frac{x}{10}$

$x = 7.54$