

Trigonometric Ratios Maze

Name _____

Solve for x in each problem.
Start at the "Start" box and work your way through the maze until you reach the "Finish" box.

Some boxes might not be used

The maze consists of 25 boxes arranged in a 5x5 grid. The path starts at the top-left box and ends at the bottom-right box. The path is highlighted in yellow.

Start (Top-Left): Triangle with angle 38° , side 15, and hypotenuse x .

Box (1,2): Triangle with angle 43° , side 13, and hypotenuse x .

Box (2,2): Triangle with angle 39° , side 17, and hypotenuse x .

Box (2,3): Triangle with angle 61° , side 27, and hypotenuse x .

Box (3,3): Triangle with angle 37° , side 4, and hypotenuse x .

Box (4,4): Triangle with angle 44° , side 8, and hypotenuse x .

Finish (Bottom-Right): A yellow smiley face.

Other boxes (not on path):

- (1,3): Triangle with angle 57° , side 16, and hypotenuse x .
- (1,4): Triangle with angle 51° , side 10, and hypotenuse x .
- (2,1): Triangle with angle 54° , side 17, and hypotenuse x .
- (3,1): Triangle with angle 52° , side 10, and hypotenuse x .

Exit numbers (between boxes):

- Between (1,1) and (1,2): 19.0
- Between (1,2) and (1,3): 18.7
- Between (1,3) and (1,4): 13.3
- Between (1,4) and (1,5): 12.7
- Between (2,1) and (2,2): 10.5
- Between (2,2) and (2,3): 12.6
- Between (2,3) and (2,4): 13.8
- Between (2,4) and (2,5): 13.3
- Between (3,1) and (3,2): 12.4
- Between (3,2) and (3,3): 13.5
- Between (3,3) and (3,4): 13.2
- Between (3,4) and (3,5): 12.9
- Between (4,1) and (4,2): 12.9
- Between (4,2) and (4,3): 13.7
- Between (4,3) and (4,4): 12.5
- Between (4,4) and (4,5): 12.5
- Between (5,1) and (5,2): 13.4
- Between (5,2) and (5,3): 14.2
- Between (5,3) and (5,4): 12.9
- Between (5,4) and (5,5): 12.7

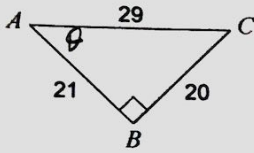
Geometry
Classwork/
 Homework - Part 2

Name Key

Date _____ Period _____

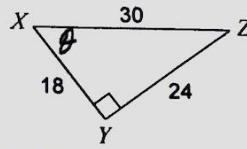
Find the value of each trigonometric ratio.

1) $\tan A$



$\frac{20}{21}$

2) $\sin X$

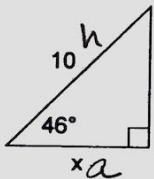


$\frac{4}{5}$

Find the missing side. Round to the nearest tenth.

SOHCAHTOA

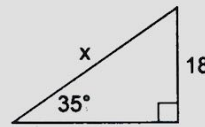
3)



$\cos 46 = \frac{x}{10}$
 $10 \cos 46 = x$

6.9

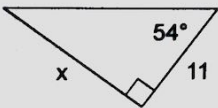
4)



$\sin 35 = \frac{18}{x}$
 $x = \frac{18}{\sin 35}$

31.4

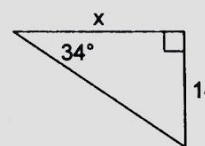
5)



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

15.1

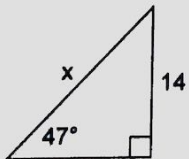
6)



$\tan 34 = \frac{14}{x}$
 $x = \frac{14}{\tan 34}$

20.8

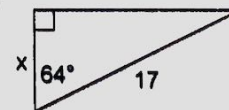
7)



$\sin 47 = \frac{14}{x}$
 $x = \frac{14}{\sin 47}$

19.1

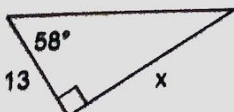
8)



$\cos 64 = \frac{17}{x}$
 $17 \cos 64 = x$

7.5

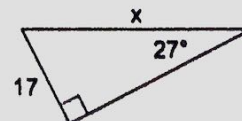
9)



$\tan 58 = \frac{x}{13}$
 $13 \tan 58 = x$

20.8

10)



$\sin 27 = \frac{17}{x}$
 $x = \frac{17}{\sin 27}$

37.4