AMDM
Name: Key

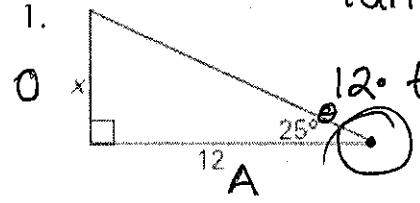
Unit 6 – Trigonometry

6.1 – Notes

Date: _____

Using Trig Ratios to Find the Missing Side or Angle of a Right Triangle

1.



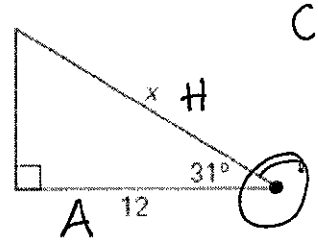
$\tan\theta = \frac{O}{A}$

$12 \cdot \tan(25) = \frac{x}{12} \cdot 12$

$12\tan(25) = x$

$5.6 = x$

2.



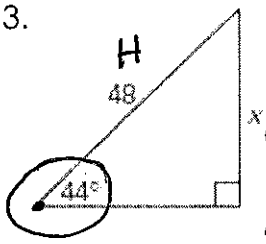
$\cos(\theta) = \frac{A}{H}$

$\cos(31) = \frac{12}{x}$

$x = \frac{12}{\cos(31)}$

$x \approx 14$

3.



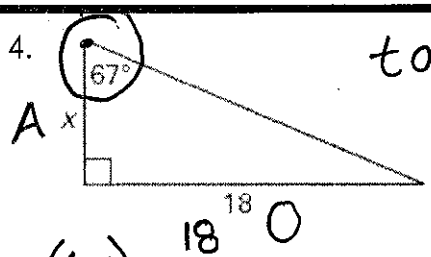
$\sin\theta = \frac{O}{H}$

$\sin(44) = \frac{x}{48}$

$48\sin(44) = x$

$33.3 = x$

4.



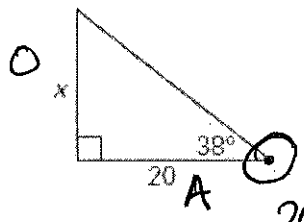
$\tan\theta = \frac{O}{A}$

$\tan(67) = \frac{18}{x}$

$x = \frac{18}{\tan(67)}$

$x = 7.6$

5.



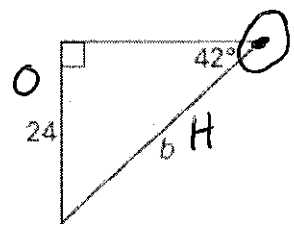
$\tan\theta = \frac{x}{20}$

$\tan(38) = \frac{x}{20}$

$20\tan(38) = x$

$15.6 = x$

6.



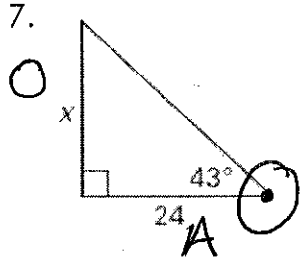
$\sin\theta = \frac{24}{b}$

$\sin(42) = \frac{24}{b}$

$b = \frac{24}{\sin(42)}$

$b = 35.9$

7.



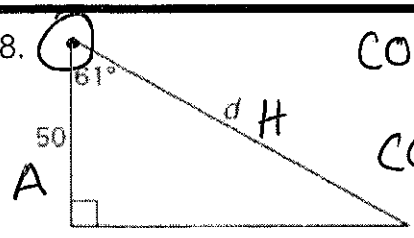
$\tan\theta = \frac{O}{A}$

$\tan(43) = \frac{x}{24}$

$24\tan(43) = x$

$22.4 = x$

8.



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

$\cos(61) = \frac{50}{d}$

$d = \frac{50}{\cos(61)}$

$d = 103.1$

Key

Trigonometry Sides Maze!

Directions: Start at the top **LEFT.** Solve for ***x***. (Round to hundredths) Use your solutions to make your way through the maze to get to the end. Circle the answers for your route.