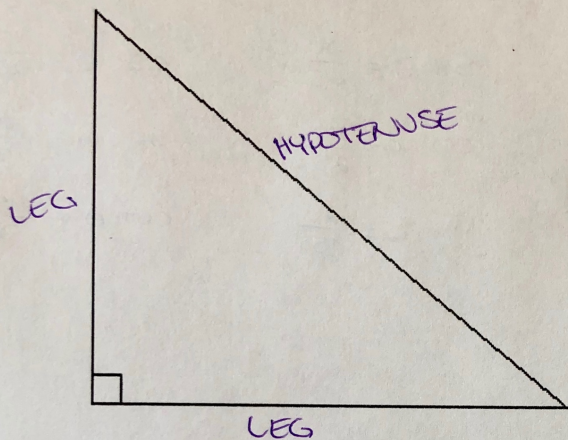


Intro to Trig - Notes

Name: KEY

Date: _____



* PYTHAGOREAN THEOREM:

USED TO FIND MISSING SIDE LENGTHS IN A RIGHT TRIANGLE.

* TRIGONOMETRY: USED TO

FIND MISSING SIDE LENGTHS AND MISSING ANGLE MEASURES IN A RIGHT TRIANGLE.

THERE ARE 6 TRIG FUNCTIONS:

$$\sin \theta = \frac{\text{OPPOSITE}}{\text{HYPOTENUSE}}$$

$$\cos \theta = \frac{\text{ADJACENT}}{\text{HYPOTENUSE}}$$

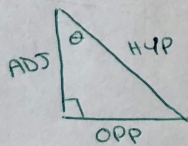
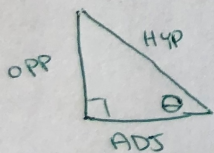
$$\tan \theta = \frac{\text{OPPOSITE}}{\text{ADJACENT}}$$

$$\csc \theta = \frac{\text{HYPOTENUSE}}{\text{OPPOSITE}}$$

$$\sec \theta = \frac{\text{HYPOTENUSE}}{\text{ADJACENT}}$$

$$\cot \theta = \frac{\text{ADJACENT}}{\text{OPPOSITE}}$$

* θ : THETA (THE ACUTE ANGLE YOU'RE USING)



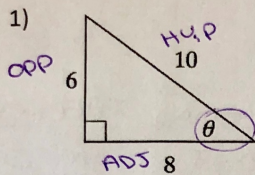
SOH
S
O
H

CAH
C
A
H

TOA
T
O
A

SOH CAH TOA

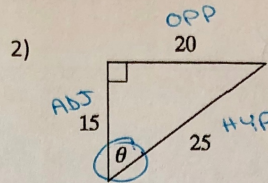
Directions: Find all trig ratios.



$$\sin \theta = \frac{6}{10} \rightarrow \csc \theta = \frac{10}{6}$$

$$\cos \theta = \frac{8}{10} \rightarrow \sec \theta = \frac{10}{8}$$

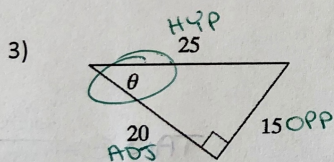
$$\tan \theta = \frac{6}{8} \rightarrow \cot \theta = \frac{8}{6}$$



$$\sin \theta = \frac{20}{25} \quad \csc \theta = \frac{25}{20}$$

$$\cos \theta = \frac{15}{25} \quad \sec \theta = \frac{25}{15}$$

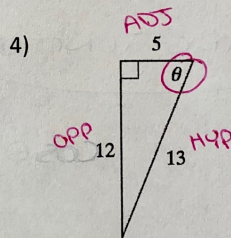
$$\tan \theta = \frac{20}{15} \quad \cot \theta = \frac{15}{20}$$



$$\sin \theta = \frac{15}{25} \quad \csc \theta = \frac{25}{15}$$

$$\cos \theta = \frac{20}{25} \quad \sec \theta = \frac{25}{20}$$

$$\tan \theta = \frac{15}{20} \quad \cot \theta = \frac{20}{15}$$



$$\sin \theta = \frac{12}{13} \quad \csc \theta = \frac{13}{12}$$

$$\cos \theta = \frac{5}{13} \quad \sec \theta = \frac{13}{5}$$

$$\tan \theta = \frac{12}{5} \quad \cot \theta = \frac{5}{12}$$

AOT HAD HOB