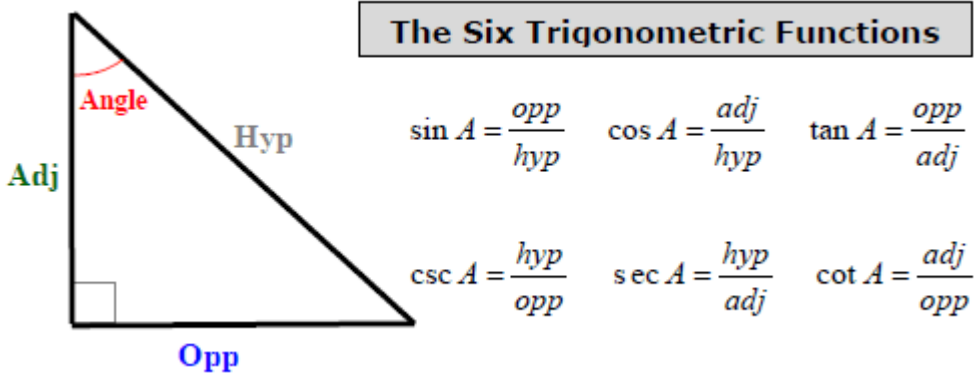


## Unit 1.2 Notes Trigonometric Functions

### Definition of the six Trigonometric Functions



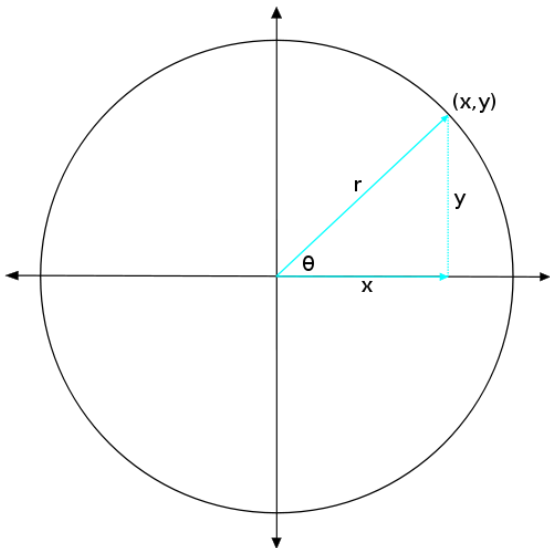
The saying that help remember this is SOH CAH TOA:

Which stands for SOH is  $\sin a = \text{Opp over Hyp}$  or  $\sin a = \frac{\text{Opposite side}}{\text{Hypotenuse}}$

Which stands for CAH is  $\cos a = \text{Adj over Hyp}$  or  $\cos a = \frac{\text{Adjacent side}}{\text{Hypotenuse}}$

Which stands for TOA is  $\tan a = \text{Opp over Adj}$  or  $\tan a = \frac{\text{Opposite side}}{\text{Adjacent side}}$

### Circular function definitions



$$\sin \theta = \frac{y}{r}$$

$$\csc \theta = \frac{r}{y}$$

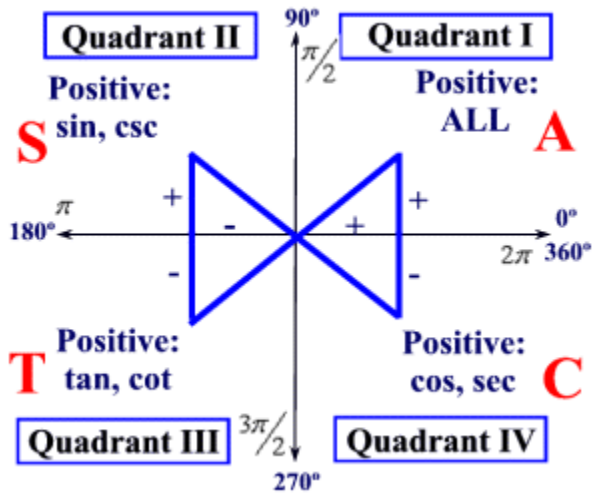
$$\cos \theta = \frac{x}{r}$$

$$\sec \theta = \frac{r}{x}$$

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

$$\cot \theta = \frac{x}{y}$$

## Signs of Trigonometric Function in each Quadrant



The saying that helps you remember is:

**A**ll **S**tudents **T**ake **C**alculus