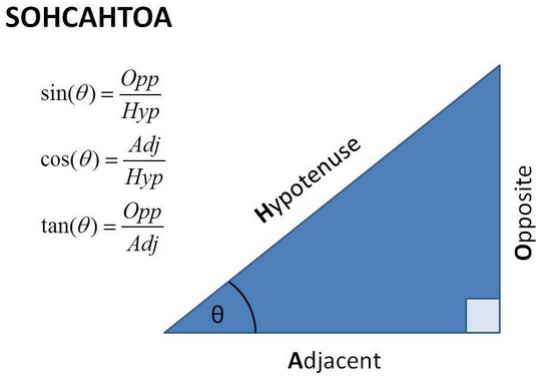
Review: Trig Functions - 9/22/16

1 Right Triangles

A trigonometric function is a ratio of sides of a right triangle.



The other three trig functions are:

- $\csc(\theta) = \frac{1}{\sin(\theta)}$
- $\sec(\theta) = \frac{1}{\cos(\theta)}$
- $\cot(\theta) = \frac{1}{\tan(\theta)}$

1.1 Unit Circle

In this class, we will be working in **radians**, not degrees! **To convert, we know that π radians is $180°$.**

Example 1.1.1 *How many radians is $60°$? I take $60° \times \frac{\pi \text{ radians}}{180°} = \frac{\pi}{3}$ radians.*

Important angles to remember

- $\frac{\pi}{6} = 30°$
- $\frac{\pi}{4} = 45°$
- $\frac{\pi}{3} = 60°$
- $\frac{\pi}{2} = 90°$
- $\pi = 180°$
- $2\pi = 360°$

Definition 1.1.2 *The **unit circle** is a circle on the coordinate plane with radius 1.*

Take a point on the unit circle and draw a line from the origin to that point. Call the angle from the x axis to that line t. Then the coordinates for that point will be $(\cos(t), \sin(t))$.