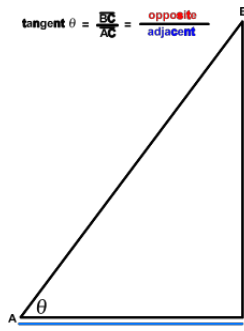


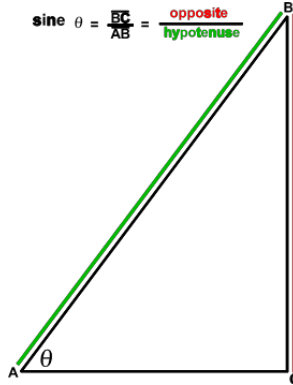
Chapter 6 Trig Functions

-trigonometry is all about angles and their measures.
 -based on right triangles with 3 primary trig ratios - sin, cos, and tan.

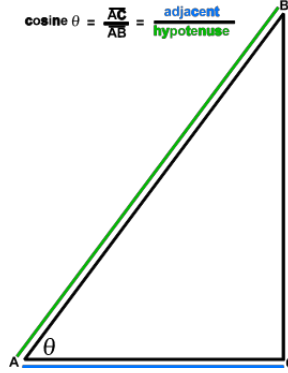
$$\text{tangent } \theta = \frac{BC}{AC} = \frac{\text{opposite}}{\text{adjacent}}$$



$$\text{sine } \theta = \frac{BC}{AB} = \frac{\text{opposite}}{\text{hypotenuse}}$$



$$\text{cosine } \theta = \frac{AC}{AB} = \frac{\text{adjacent}}{\text{hypotenuse}}$$



-there are 3 reciprocal trig ratios - csc, sec, cot

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Finding values of trig ratios:

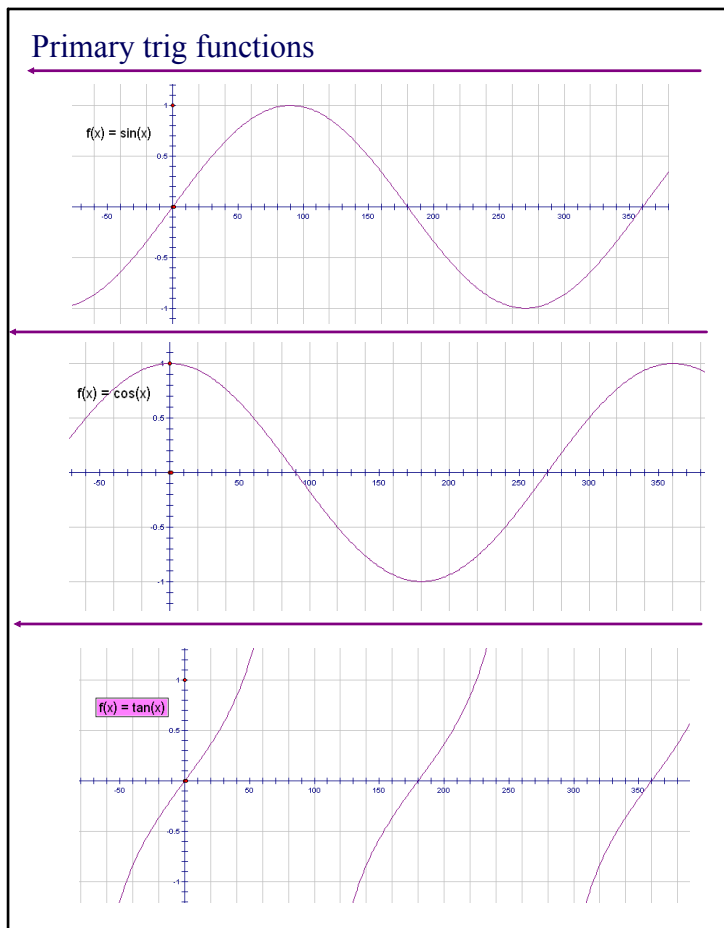
EX: $\sin 30^\circ$

In Calculator:

EX: $\sin \theta = 0.5$

In Calculator:

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CAST Rule More than one answer

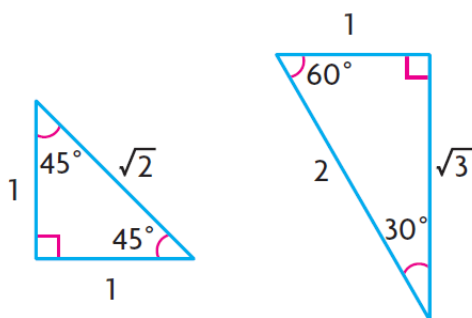
A coordinate plane with x and y axes. A purple line segment is drawn in the first quadrant, starting from the origin (0,0) and extending to the point (4, 1). This represents the relationship $\tan x = \frac{1}{4}$.

Solve for "x" ($0 < x < 360$)

$$\sin x = \frac{1}{2} \qquad \tan x = -\frac{5}{4}$$

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Special Triangles: -used to solve some trig ratios without a calculator



EX: $\sin 60^\circ$

$$\cos \theta = \frac{1}{\sqrt{2}}$$

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Transformations same as always

$$y = 2 \sin(3(x + 45^\circ)) - 4$$

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Homework
p314 #1-6

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