

Ch.6 Group Quiz: Study List

*Find coterminal angles $\theta \pm 360n$ (n is a whole number)

*Find reference angles $\theta, 180 - \theta, \theta - 180, 360 - \theta$

* 30° - 60° - 90° and 45° - 45° - 90° triangles (know basic measurements and find trig ratios)

*Use unit circle to find "special" trig ratios for $0^\circ, 90^\circ, 180^\circ, 270^\circ, 360^\circ$

*Find trig ratios, given a point, angle, triangle, or terminal side in a certain quadrant (apply negatives appropriately)

$$\sin\theta = y/r \quad \cos\theta = x/r \quad \tan\theta = y/x$$

$$\csc\theta = r/y \quad \sec\theta = r/x \quad \cot\theta = x/y$$

*Solve for a missing side or angle in a right triangle:
Soh Cah Toa

*Apply inverses: $\sin^{-1}\theta, \cos^{-1}\theta, \tan^{-1}\theta$

*Law of Sines

*Law of Cosines

*Area of Triangle: $A = \frac{1}{2}(\text{side1})(\text{side2})\sin(\text{included angle})$

*Solve word problems using trig

Formulas to know for the quiz!!!

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

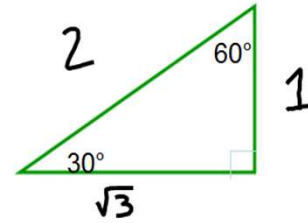
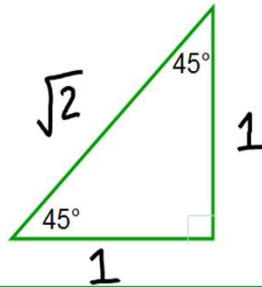
$$\cos \theta = \frac{x}{r}$$

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

$$r^2 = x^2 + y^2$$

$$r = \sqrt{x^2 + y^2}$$

Special triangles:



Law of Sines:

$$\frac{\sin A}{a} = \frac{\sin B}{b}$$

Law of Cosines:

↓ This side is across from this angle ↓

$$a^2 = b^2 + c^2 - 2bc(\cos A)$$

Finding the area of a triangle when the base and height are not given:

$$A = \frac{1}{2}(\text{side1})(\text{side2}) \cdot \sin(\text{included angle})$$