Math 2
Inverse Trig Functions

Using a Calculator to Find the Angle Measure

Use the 2nd key on the calculator to get SIN^{-1}. This is interpreted as "find the angle whose Sine is".

Example 1: Find the measure of the angle whose Sin is .5   Sin $\angle B = .5 \longrightarrow \angle B = \sin^{-1}(.5) = $ _____

Using a graphing calculator, press the following: Using most scientific calculators, press the following:

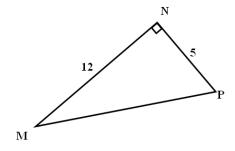 2nd SIN   .5   ENTER   .5   (2nd or INV)   SIN

Example 2: Now find the measure of the angle whose Cosine is .5

        cos $\angle A = .5 \longrightarrow \angle A = \cos^{-1}(.5) = $ _____

Find the following angle measures to the nearest degree.

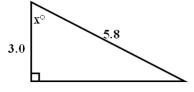1. m $\angle$ M =   2. m$\angle$ P =

3. Find the m$\angle$ L (to the nearest degree).
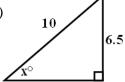

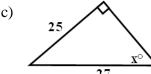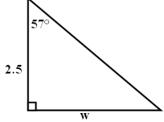4. Find the value of "x" to the nearest degree.

a)
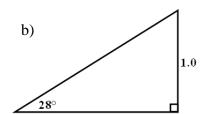

b)

c)

5. Find the value of "w" to the nearest tenth.

a)

57°

2.5

w

b)

1.0

28°

w

Summary:

What's an acronym that can help you remember the trigonometric ratios? _____

Fill in the ratios using the words *opposite, adjacent,* and *hypotenuse*.

sin(x) = _____   cos(x) = _____   tan(x) = _____

We use trigonometric functions (sin, cos, tan) to find missing _____ of right triangles.

We use *inverse* trigonometric functions (sin⁻¹, cos⁻¹, tan⁻¹) to find missing _____ of right triangles.