**FMPC 10**

**Angles and Basic Trigonometric Ratios**

* Basic trigonometric ratios can be used to determine the degree measure of an acute angle in a right-angled triangle.
* To find the degree measure, one has to take the ***inverse of a trigonometric ratio.***
* If any two sides in a right-angled triangle are known, the acute angles in that triangle can be calculated.

Example 1: Find the degree measure of $∠ K$ and $∠ M$. Round your answer to the nearest degree.

 K

 15

 L M

 8.5

Example 2: Solve the triangle ABC. Note, to solve a triangle means to find all the missing information about its angles and side lengths. A

 12.5

 B

 3.8

 C

Note:

An inverse of a trigonometric ratio is written in a way that resemble an exponent of a negative one. This is only an unfortunate notation. An inverse of a trigonometric ratio has nothing to do with exponents.

An inverse is a reverse operation.

Angle of Elevation

* an angle that is above a horizontal while between the line of sight the horizontal.
* “Looking up”

Angle of Depression

* an angle that is below a horizontal while between the line of sight and the horizontal.
* “Looking down”