Unit 6 Review/Outline

**Pythagorean Theorem:** leg² + leg² = hyp² (Use if you have 2 side lengths & looking for the 3rd side length)

**Special Right Triangles:** have SHORTCUTS

45° 45° 90° If given the leg, to find the hypotenuse, then MULTIPLY BY **√2**

 If given the hypotenuse, to find the leg, then DIVIDE BY **√2**

 leg hyp

 leg

30° 60° 90° If given the short leg, to find the hypotenuse then MULTIPLY by **2**

 If given the hypotenuse, to find the short leg then DIVIDE by **2** hyp

 longer

 leg

 If given the short leg, to find the longer leg then MULTIPLY by **√3**

 If given the longer leg, to find the shorter leg then DIVIDE by **√3** short leg

**SOH CAH TOA:** use to find missing side of a right triangle if you are given a side length and angle measure

**INVERSE** **of SOH CAH TOA**: use to find missing angle measure of a right triangle if you are given at least 2 side lengths

**Pythagorean Triple**: all sides of the right triangle are whole numbers

To determine if a triangle is **Right, Obtuse, or Acute**:

 hyp² **=** leg² + leg² Right triangle

 hyp² **>** leg² + leg² Obtuse triangle

 hyp² **<** leg² + leg² Acute triangle

The sum of the 2 smallest sides needs to be **greater than** the largest side in order for it to be a triangle.

**Angle of Depression**- the angle that starts at the top and is moving **down** and on the **outside** of the triangle

**Angle of Elevation-** the angle that starts at the bottom is moving **up** and on the **inside** of the triangle.

\*\*The angle of elevation and the angle of

depression are always the SAME\*\*

Other acute angle is classified as 90 **—** “theta”