Warm-Up

You and your buddy Buddy are both looking up at a giant statue of Pythagoras on the Isle of Samos. Buddy is 100 feet due north of the statue and his angle to the top of the statue is 38°. You are due south of the statue and are 60 feet from the base. Your angle to the top is 52°. How tall is the statue of Pythagoras?   How much wire would be needed if wire was run from Buddy's location to the top of the statue?

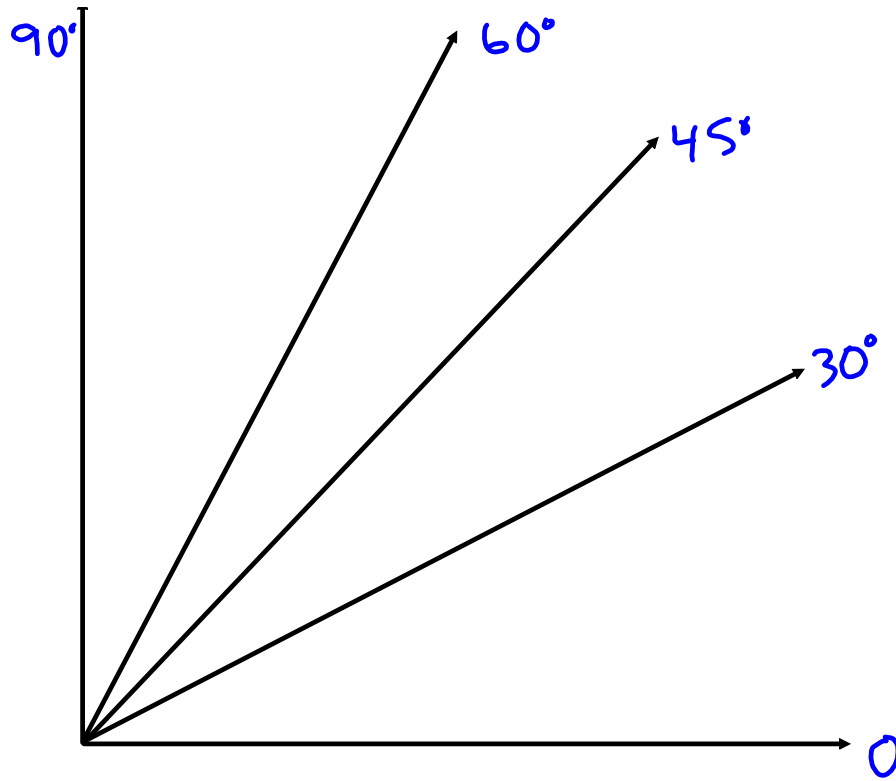**Chapter 12 - Trigonometry**

12.1 Trigonometric Ratios
A.   I can define the sine, cosine, and tangent ratios
B.   I can explain and use the relationship between the sine and cosine of complementary angles

12.2 Problem Solving with Right Triangles
A.   I can use trigonometry to solve problems with right triangles.
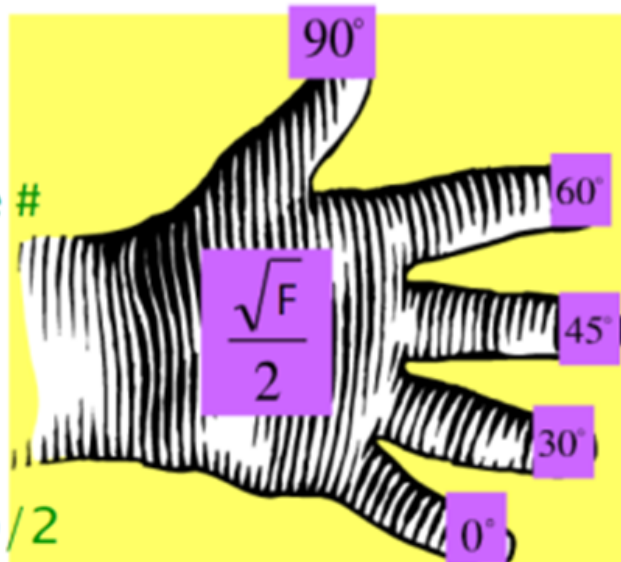B.   I can use angle of elevation and angle of depression to solve right triangle application problems.

Quiz Time! For all questions, please round to the nearest **tenth.**

When finished, pick up worksheet and extra-credit opportunity.

90°

60°

45°

30°

0

The Hand Trick

90°

1. Use Left Hand
2. Fold in finger for the #
of degrees you want
3. **cos θ =**
(√ top fingers)/2
4. sin θ =
(√ bottom fingers)/2

$$\frac{\sqrt{F}}{2}$$

60°

45°

30°

0°

5. $\tan \theta = \dfrac{\sin \theta}{\cos \theta} = \dfrac{\sqrt{\text{bottom fingers}}}{\sqrt{\text{top fingers}}}$

Homework:

- Textbook p. 591-593: 10-16
- Memorize Special Triangles Trig
- Optional Extra Credit

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