**Practice:** pg 440 #1-6, 8-13, read and select from pg 441

**Trigonometric Identities and Equations: Unit Summary**

Things to know...

1. Memorize the 18 key identities/formulas.
2. Memorize the two special triangles.
3. Be able to recognize valid trigonometric identities in the context of a transformation; ie... .
4. The symmetry associated with primary trigonometric function reveals that --> , ,
5. The sine, cosine, and tangent of any angle is equal to the sine, cosine, tangent of the related angle (with the sign determined by the quadrant of the original terminal arm).
6. Be able to use compound angle formulas to determine exact value of trigonometric expressions when the angle is not found in a special triangle...ie; 150, 750, ...
7. Use the graphs of sine and cosine to determine angles or ratios. For example sin(900) = 1 as seen on the graph for y = sinθ.
8. Be able to derive and apply the double angle formulas.
9. Prove identities using known identities from your formula sheet.
10. Be familiar with some key strategies to prove identities. Some strategies include...
    * tan, csc, sec, and cot can all be turned into sines and cosines.
    * be able to go back and forth from  to using the Pythagorean identity.
    * some known identities are difference of squares ...

 can be changed to .

* the conjugate can be used to complete a difference of squares; this can help turn an unwanted sine into a cosine or vice versa.
* cos(2θ) has three forms... choose wisely when changing it.

1. Be able to solve trigonometric equations by isolating the basic

trigonometric function first.

1. Solve quadratic trigonometric equations...

* sometimes, all of the trigonometric components in an equation can be switched to use the same trigonometric ratio.
* equations can sometimes be solved by factoring and using the zero principle.