

## Week 26 Algebra 2 Assignment:

Day 1: pp. 478-479 #1-9 odd, 17, 19

Day 2: p. 482 #1-23 odd

Day 3: Chapter 11 test

Day 4: pp. 487-488 #1-7 odd, 9-19, 23-27

Day 5: pp. 491-492 #1-6, 7-19 odd, 22, 25-27

### Notes on Assignment:

#### Pages 478-479:

Work to show:

All problems: Show work to solve.

#1-3: Solve these for the trig function and then ask yourself where on the unit circle does the trig function equal that number?

#5: Solve for  $\cos x$ .

#7: Get everything in terms of either sine or cosine using the Pythagorean identities and then solve.

#9: Get everything in terms of either sine or cosine using the Pythagorean identities and then solve.

#17: The sine of your “stuff” equals  $\frac{\sqrt{2}}{2}$ . So what does your “stuff” have to equal? Set it equal and then solve for  $x$ .

#### Page 482:

Chapter Review – no notes

Work to show:

All problems: Show work to solve.

## Chapter 11 test:

**\*Students may use one 4x6 note card for this test and their calculator.**

### For the test:

Know when and how to use the Law of Sines and Law of Cosines.

Know the domain, range, and period of the 3 basic trig functions.

Solve trig equations.

Evaluate sum and difference formulas.

Prove trig identities.

Solve word problems involving non-right triangles.

## Pages 487-488:

### Work to show:

#1-7: Answer as directed

#9-15: Show work finding inverses.

#17-19: Answer as directed

#23-27: Show factoring and canceling

#1-3: Write these as simple sets of points. Your answers will vary.

#9-12: When finding the inverse of a function:

1. Write a  $y$  in place of the  $f(x)$ .
2. Exchange the  $x$  and the  $y$  in the equation.
3. Solve for  $y$ .
4. Put  $f^{-1}(x)$  back in for the  $y$ .

#13: Remember that  $(f \circ g)(x)$  is the same as  $f(g(x))$ , which means to take the function  $g(x)$  and put it into the function  $f$ . So for this problem, take the function  $f^{-1}(x)$  and put it into the function  $f$ .

#23-27: Factor and cancel.

## Pages 491-492:

### Work to show:

#1-6: Table and/or graph

#7-22: Answers only

#25-27: Show work as needed.

#1-4: Use only as many values in the table as you need.

#5: The principal values for the inverse cosine relation go from 0 to  $\pi$ , so in your table, put values from 0 to  $\pi$  in your y-column. Use your calculator and the  $\cos^{-1}$  button to find the corresponding values for the x-column.

#6: Do this similarly to #5.

#7: This is asking, "Where is the sine equal to  $\frac{\sqrt{2}}{2}$ ?"

#11-15: Remember the principal ranges:

- $\sin^{-1}$  will only return angles from  $-\frac{\pi}{2}$  to  $\frac{\pi}{2}$ .
- $\cos^{-1}$  will only return angles from 0 to  $\pi$ .
- $\tan^{-1}$  will only return angles from  $-\frac{\pi}{2}$  to  $\frac{\pi}{2}$ .

#22: You are finding the sine of the angle whose secant is 1.5. Find  $\sec^{-1}1.5$  first. (Try writing  $\sec^{-1}$  in terms of  $\cos^{-1}$ ).