Week 24 Algebra 2 Assignment:

Day 1: pp. 446-447 #1-12
Day 2: pp. 446-448 #13-20, 25-29
Day 3: pp. 451-452 #1-17 odd, 22-26
Day 4: pp. 455-457 #1-10, 11-17 odd
Day 5: pp. 455-457 #12-18 even, 23-27

Notes on Assignment:

Pages 446-448:

General notes for this section: Remember that ASS is the one that sometimes causes problems. (o: You may get 0, 1, or 2 triangles. How to tell:

(Let's say you are solving a triangle and looking for angle B.)

One triangle:

- If the side across from ∠B is greater than the side adjacent to ∠B, then there is only 1 triangle.
- If you are in the process of finding the angle and the angle turns out to be 90°, then there is only one triangle.

No triangle:

- If you get the sin B = a # greater than 1, that's impossible, and there is no triangle.

Two triangles: (The side across from ∠B must be less than the side adjacent to ∠B)

- If you get sin B = a positive number, you should assume that you have 2 angles with that sine (one in quadrant I, and one in quadrant II). Use your calculator to find the first one, and then using that as a reference angle, find the angle in quadrant II that also has that sine.

Work to show:
#1-20: Draw triangles and show work.
#25-29: Show work.

#1-6: Draw these triangles and label the parts.

#3: Since you don't know C or c, you will have to find B first and then subtract from 180° to find C. (This problem actually gives you 2 triangles, but just find the first (and obvious) measure for B and C.

#7-20: It is helpful to draw these first. If they are ASS triangles, realize that you may get 0, 1, or 2 triangles. See the general notes above.

#26: GCF out first.

#28: This turns into 2 equations joined by the word "or."

#29: Remember what happens when you multiply both sides of an inequality by a negative number. (See section 2.7 if you have forgotten.)

Pages 451-452:

General notes for this section: If you know one complete set of values (a side and its opposite angle), you can use the Law of Sines. Otherwise you will have to use the Law of Cosines.

Work to show:
- #1-5: Show work as needed.
- #7-17, 22-25: Draw triangles. Write numbers in the correct law and show work solving.
- #26: Answer as directed.

The answers are given in degrees and minutes in the solutions. Take the decimal part of your decimal degree and multiply it by 60 to get minutes. The easiest way to do this on your calculator is when your answer is in the viewing screen, subtract the whole number part from it and then multiply times 60.

Pages 455-457:

Work to show:
- #1-10: Answer as directed.
- #11-18: These 5-step word problems.
- #23-27: Graphs

#11-18: These are 5-step word problems. Be careful drawing the pictures. Then decide which law to use. You may have to use a Law more than once, or use both Laws to complete the problem. Generally speaking, once you have use the Law of Cosines, it is often easier to switch over to using the Law of Sines for the rest of the values that you are solving for.

#23-27: Use the printed graphs from the math web site for these to save time.