Geometry week 7

Day 1: pp. 124-126 #1-25
Day 2: pp. 133-134 #1-24
Day 3: pp. 137-141 #1-31
Day 4: pp. 147-149 #1-23
Day 5: p. 126 #26-29, p. 141 #32-39, p. 149 #26-30

Notes on Assignment:

Pages 124-126

Work to show:
#1-9: Answers only
#10-23: Draw angles
#24-25: Answers only

#1-9: Remember to read from the scale that has 0° along your bottom ray.

#10-17: Use a straightedge and protractor.

#19-23: You are drawing, not constructing, so use your straightedge and a protractor.

Pages 133-134

Work to show:
#All problems: Show work as needed.

#1-10: Place the protractor so that one ray lines up with the bottom line of the protractor and that the vertex lines up at your compass' cross-hairs. Follow the ray to the edge of the protractor and find 0°. Starting at the 0°, read along that scale to where your other ray is.

#11-13: Use the Angle Addition Postulate. The 2 measures of the smaller angles must add up to the measure of the large angle.

#14: These 2 angles form a linear pair, so you should know what their angles add to.

#19: If you take any 2 rays and subtract their measures using the same scale, it will tell you the measure of the angle formed by the 2 rays. Or, you can use a protractor and measure directly by placing one ray at 0°.

#21-24: What you are to do is finish the equation. What does the sum or difference equal?

#26-30: These are all from chapter 2, and all will be 3 disjoint sets.

Pages 137-141

Work to show:
All problems: Answers only is ok.

#1: Consider the relationship between this angle and the given angle.

#2: Consider the relationship between this angle and the given angle.

#6: There are many answers to this. Just make sure that your 2 angles share a common side.

#7-11: Before you answer these questions, use what you know about vertical angles, complementary angles, and/or addition of angles to figure out the measures of ∠FGA and ∠DGC.

#11: You are to list an angle that is acute, obtuse, straight, and right.

#12-14: We did this in class. See if you can do these with out looking at the overhead files of today's class.

#15-17: First draw the picture that is described in the Given. Then answer #15 and 16. Use transitive property on your answer to #15 and 16 to come up with a conclusion.

#18-22: We did this in class. See if you can do these with out looking at the overhead files of today's class.

#23: Which theorem on page 137 tells us this?

#26: What definition is this?

#27: Which theorem on page 137 tells us this?

#29: This property is the one that lets us relate the 2 equations from the previous step.

#30: How did we get from the equation in #29 to the equation in #30? What was done to both sides of the equation? What property is this? (Refer to page 85 if needed.)

#31: Any time you go from stating congruence to equal measures, or from equal measures to congruence, you are using the definition of congruence.

Pages 147-149

Work to show:

All problems: Answer as directed.

#11-12, 14: Refer to the pictures on the overhead or the descriptions in the paragraphs on pages 144-145.

#15: This is referring to the Pythagorean Theorem.

#16-20: You may want to sketch these if you have trouble figuring them out.

#22: In exercise #13 you discovered that the sum of the angles of a triangle is 180°. This is true for all triangles. So for this triangle, if you know one angle is 70° and one is x°, how would you find the third angle?

#23: Use the Pythagorean Theorem on this: $leg^2 + leg^2 = hypotenuse^2$

#28: If you knew the measure of one angle in a linear pair, what would you do to find the other angle? Do the same with the angle x.

#29: If you know the measure of one acute angle, how do you find the complement of it? Now do the same thing using x + 23.

#30: Let x = one angle. How would you represent the other angle if it is 46° more than the first one? And if the 2 angles are complementary, what would the equation be, using the 2 angles? (What do the 2 angles add up to?)

#31: Let x = one angle. How would you represent the other angle if it is 15° more than twice the first angle? Now write what the equation is that relates 2 supplementary angles.

#32: Let x = PD. How would you represent PC if it is 4 inches more than 3 times PD? Now, since you have C-P-D, the 2 pieces CP and PD must add up to CD, which is given.