Week 15 Pre-Algebra Assignment:

Day 1: pp. 308-309 #1-18, 25-42, 45-49 (Use calculators)
Day 2: Chapter 7 test
Day 3: pp. 285-286 #1-33 odd
Day 4: pp. 315-316 #1-33 odd
Day 5: pp. 321-322 # 1-35 odd

Notes on Assignment:

<u>Pages 308-309</u> (#1-18, 25-42, 45-49 odd, 35-40)

Work to show:
   #1-11: Show any work needed.
   #12-18: Either show the equation and its solving, or show the proportion and its
         solving.
   #24-49: Show the numbers that are being calculated but then use your calculator for
         the actual answer.

#12-18: These problems can be done with proportions, or you can translate the information
      given into an equation. Either one is fine.

<u>Chapter 7 test</u>

<u>For the test:</u>

You may use a calculator on this test.
You may use one hand-written note card (front and back) on this test. You can put
      formulas, examples, or anything else you want on the card.

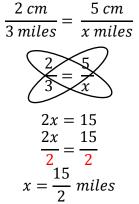<u>Pages 285-286</u> (#1-33 odd)

Work to show:
   #1-13: Write the proportion problem and then solve it. Label answers.
   #15-17: Show work as needed.
   #19-29: Write the proportion problem and then solve it. Label answers.
   #31-33: Write the equation and solve.

<u>General notes for this section:</u>

* When using a scale, like 2 cm : 3 miles, you would write your ratio as $\frac{2\ cm}{3\ mi}$.   Then
  set that equal to a ratio with the same labels. So if you had 5 cm and you wanted to

find the miles for that you would have $\frac{2\,cm}{3\,miles} = \frac{5\,cm}{x\,miles}$. Both of the cm amounts are on the top and both $miles$ amounts are on the bottom. Solve this with cross products.

$$\frac{2\,cm}{3\,miles} = \frac{5\,cm}{x\,miles}$$

$$\frac{2}{3} = \frac{5}{x}$$

$$2x = 15$$

$$\frac{2x}{2} = \frac{15}{2}$$

$$x = \frac{15}{2}\,miles$$

- When enlarging by a percentage, the equation is

$$(original\ measurement) \cdot (\%\ of\ enlargement) = enlarged\ measurement$$

Fill in the amounts you know and solve for the one you don't. Remember that the % is always written in decimal form in an equation.

#1-13: For all of these problems you must make a ratio out of the scale, and set it equal to another ratio which includes the measurement given. Make sure that the labels match on the top (in the numerators) and the labels match on the bottom (denominators). Solve by cross products. Label your final answer.

<u>Pages 315-316</u> (#1-33 odd)

Work to show:
    #1-7: Clear any (   ) as you write the problem down. Then combine like terms.
    #9-33: Write the problem, clear ( ), and show what is being done to both sides as
        you solve.

<u>General notes for this section</u>: These equations will need to be simplified *before* you can solve them. That means clear any ( ) using the Distributive Property and also combine any like terms.

        <u>Steps for solving equations</u>:
            1. Clear any (   ) or other grouping symbols and combine like terms.
            2. Isolate the variable term
            3. Multiply or divide to solve.

#5: Make sure you multiply through the parentheses with -2.

#11: Remember that if you ever have a variable without a coefficient, you can put a 1 there. So when you see $-y$ you can write $-1y$.

#15: Make sure to always combine like terms whenever possible. That includes combining the numbers, too. So make sure to combine 7-4 on the left before you continue solving.

#21: The 3 only gets multiplied through the ( ) so don't multiply the 3 times the -4x.

#25: Once you clear both sets of parentheses, make sure to combine the x terms together and the numbers together before you continue solving.

#33: It is very important that you put a 1 in front of the (y+1). The problem then reads $6y$-$1(y$+$1) = 6$. This helps you remember to multiply the (y+1) through by -1.

Pages 321-323 (#1-35 odd)

Work to show:
    #1-3: Answers only
    #5-35: Write the problem, clear ( ), and show what is being done to both sides as you solve.

General notes for this section: These equations may need to be simplified *before* you can solve them, and they may also have variable terms on both sides. Clear any ( ) using the Distributive Property, combine any like terms, and then get rid of the variable term on one side.

        Steps for solving equations:
        1. Clear any ( ) or other grouping symbols and combine like terms.
        2. Get rid of the variable term on one side of the equation.
        3. Isolate the variable term
        4. Multiply or divide to solve.

#5: To get rid of the variable term on the right side of the equation, add 2x to both sides.

#13: When you have both numbers and variables on both sides and you are getting rid of one of the variable terms, it is usually easier to get rid of the smaller one so that you don't end up with a negative. So for this problem, subtract 3y from both sides instead of subtracting 8y from both sides.

#21: For the same reason as mentioned above for #13, I would suggest that you get rid of the -10x since it is smaller than the 8x. To do this, add 10x to both sides.