Week 17 Pre-Algebra Assignment:

Day 1: pp. 326-327 #1-10, 15, 18, 20, 23, 27
Day 2: pp. 333-334 #2-40 even
Day 3: pp. 338-339 #9, 11, 13, 19, 22, 27
Day 4: p. 308 #19-24, pp. 342-343 #2-48 even
Day 5: Chapter 8 test

Notes on Assignment:

<u>Pages 326-327</u> (#1-10, 15, 18, 20, 23, 27)

Work to show:
    #1-10: Let statements and equations only
    All other problems: 5 steps (Number your steps.) Use the 5-step process that we
            learned in class. This is not the same as what is in the textbook. The 5 steps
            should be numbered, and they include the following:

    1. Find: (Write down what you are trying to find.)
    2. Let statement: (Establish the variable being used. If you have more than one
        quantity, always start with the one you know the least about.)
    3. Equation (Translate the information not yet used into an equation.)
    4. Solution (When you finish solving the equation, circle your solution. If you have
        more than one quantity listed in step 2, write down what they equal as well.)
    5. Conclusion (Write a sentence answering what you were told to find.)

General notes for this section:

Remember to use our table of key words when translating:

+	-	x	÷	=
sum	difference	product	quotient	is
total	decreased by	times	divide	gives
add	diminished by	multiply	divided by	equals
more than	subtract	twice	half	is equal to
plus	minus	triple	ratio	results in
increased by	less than*	of		

#1: I noticed when looking at the solutions that the let statements are a little different then I want you to write them. I want you to follow this structure instead:

> Let x = the first integer
> x+1 = next consecutive integer
>
> x + (x+1) = 471

#2-10: Follow the structure as shown above.

#15, 18: Since you have consecutive integers you will have the same let statements as above in problem 1. The smaller of the two integers is x and the larger is x+1.

#20: If you have consecutive even integers then you have to add 2 to get to the next one, so our numbers will be x, x+2, and x+4. Also, remember that when you see "81 less than" you have to put " – 81 " out the back door.

#27: You should let c = the current. Use the distance formula d=rt and fill it in with what you know. You are given the distance traveled, the time, and the rate in still water. Remember that for the "r" in your formula you need to start with the rate in still water but then subtract the current (c) because the current is going to slow you down so your rate is reduced by that much.

Pages 333-334 (#2-40 even)

Work to show:
    #2-8: Show work solving and also graph.
    #10-40: Show work solving by showing what is done to each side as you solve.

General notes for this section: These will be solve just like equations with one exception. For the last step, if you multiply or divide by a negative number, you must flip the inequality symbol.

#2-8: These are all 2-step problems. Remember that when you graph these on a number line make the circle open if the symbol is < or > and closed if the symbol is ≤ or ≥.

#22: Remember to combine the like terms before you start solving.

#26: Put 1 in front of the x on the right side. Then notice that there are variable terms on both sides. You need to subtract the $1x$ from both sides first. You could choose to subtract the $6x$ from both sides but then you would have a negative to keep track of, which sometimes causes student errors.

#28: Remember to clear the (   ) first!

#34: Remember that to undo multiplication by a fraction on the last step you multiply by the reciprocal.

Pages 338-339 (#9, 11, 13, 19, 22, 27)

Work to show:
   #All problems: 5-steps (numbered)

#11: When we want to find how much a person makes in a week we take the hourly rate times the number of hours.

#13: The cost of the drawer pulls is going to be 15 times however much each one costs. We will take that amount and add our lawnmower cost to it. That total must be within the budget so it must be at most $400.

#19: You will have 2 let statements. Start by letting x = the number of hardcover books. Then write _____ = the number of paperback books (fill in the blank). Once you have those 2 amounts, find how much is spent by multiplying the number of hardbacks by $7 and the number of paperbacks by $4. The total must be at most $150.

#22: You are given the cost of the suit and shirts but you don't know how many ties he bought so you will have to calculate that by multiplying $20 times the number of ties (which is our unknown, x). Come up with an expression for all of the money spent (suit+shirts+ties). Then in order to add the tax, you can either calculate the tax separately on the total and add it on, or as a shortcut, since the tax is 5% you pay 100% of the cost + 5% of the cost, which is the same as 105% of the cost. That means your expression for the cost is 1.05(suit+shirts+ties). This amount must not be more than $325.

#27: Write a let statement for each type of ticket. If buying 1 adult and 2 child tickets you will spend 1(price of adult ticket) + 2(price of child ticket). This amount must be more than $250.

Page 308 (#19-24)

Work to show:
   #19-24: Show the proportion and solving of the equation

All problems: Remember to put matching units of measure on the top and on the bottom of each fraction.

<u>Pages 342-343</u> (#2-48 even)

#30: Even integers are x and x+2.

#46: If the 4th score is x, then to find the average of the 4 tests you take the sum of the scores (273 + x) and divide that by 4. He wants that amount to be 92 or more.

#48: Take the price of the mat times 6 and the price of the frames times 6 and add these together. Than amount is more than $100.

<u>Chapter 8 test</u>

<u>For the test:</u>

- Set up a proportion to find a value using a particular scale.
- Solve equations that:
    - Have ( ) to clear
    - Have like terms to combine
    - Have variable terms on both sides
- Solve inequalities
- Translate sentences into equations
- Translate sentences into inequalities
- Word problems using equations and inequalities