Week 6 Algebra 1 Assignment:

Day 1: p. 106 #1-25 odd, 28-32 Day 2: pp. 108-11 #1-29 odd, 32-36 Day 3: pp. 116-117 #1-27 odd, 31-35 Day 4: pp. 122-123 #1-19 odd, 22-26 Day 5: pp. 126-127 #1-39 odd

Notes on Assignment:

Page 106:

Work to show:

#1-25: Show what results when you clear parentheses and then combine like terms. #28-32: Show any work needed.

- <u>Note for these problems</u>: In general, when you have () with no number in front, or if you have a variable with no number in front, you can (and should) put a 1 there.
- #1: When you are adding a quantity in parentheses, you can write a 1 in front of the () and multiply through by 1 to clear the (). For example, for this problem, write it as 4a+1(2a+9) and multiply through by the 1 to get 4a+2a+9. Notice that this looks just like the original problem except the () are gone. That is what happens when you multiply through by +1. Now just combine the like terms.
- #5: This is similar to #1, but it is a minus sign in front of the () instead of a plus sign. Here you <u>must</u> put a 1 in front of the () and multiply through by the -1. Your problem becomes 5-1(2x-18). Multiply through the () by the -1 to get 5-2x+18. Now you can combine like terms.
- #11: Remember that you are multiplying through by -3 to clear the parentheses.
- #13: When you multiply 5x times x, write the product as $5x^2$.
- #25: When you multiply x(x+y) y(x+y) you get $x^2 + xy yx y^2$. If multiplying 2 variables times each other, you must write each one in the product. Also realize that *xy* and *yx* are the same thing. So, this can be written as $1x^2 + 1xy 1xy 1y^2$. Combine your like terms.

Pages 108-111:

Work to show:

#1-29: For all of these problems, 1) Write the formula, 2) Fill in the values given, and 3) Work it out. You <u>can</u> use a calculator for this assignment. (o: #32-36: Show any work needed.

- #1: The formula for this problem is in the opening paragraph on page 107.
- #3-5: These formulas are in the box on page 108.
- #15: When using a percent in a formula, you must change it to a decimal first. Change 7% to .07 in your formula.
- #19: Since there were 45 hours worked, you must split this up. Use 40 hours for *h* (regular time hours) and 5 for *E* (the overtime hours)
- #25-29: Use the translations on page108 for these.
- #32: "Kick" the 7 to the denominator to make the exponent a positive 2. Then simplify.
- #34, 35: Substitute for the variables, and then take care of the negative exponents as you did in #32.

Pages 116-117:

Work to show:

#1-27: Write the answer only.#31-35: Write the problem, fill it in, and work it out.

- #1-9: Ask what was done to the left side of the equation in the 2nd step. This must also be done to the right side of the equation. For example, in #1, 5 was added to the left side, so 5 must be added to the right side also.
- #11-13: Simplify each side and see if you get the same number. Follow the order of operations.
- #15-17: Substitute the number given for x into the equation in place of the x. If you get a true equation, then the number is a solution.
- #19-21: Refer to the properties on page 116.
- #25-27: Translate these but do not simplify.

#31-35: For all of these problems, 1) write the formula, 2) fill in the values given, and 3) work it out.

Pages 122-123:

Work to show:

#1-11: Write the answers only.#13-19: Write the Let statements and then the equation.#22-26: For all of these problems, 1) Write the formula, 2) Fill in the values given, and 3) Work it out.

- #1-11: You do not <u>need</u> to write Let statements for these, only the equations. Use the variable x for all of these problems.
- #5: Remember to write the percent as a decimal in the equation.
- #11: Remember to use x and x + 2 for your consecutive odd integers.
- #13-19: You do need to write Let statements for these before you write the equation. For the Let statements, always start with the number (or quantity) that you know the least about. Let x = that number. The other number(s) will come from x.
- #13: When you read through this, you see that you know nothing about angle B. So, let x = the measure of angle B. From that you should be able to write a representation for angle A and angle C.
- #15: Which do you know the least about: the number of Jim's books or Bill's books? Let x equal the one you know the least about.
- #17: "Older than" means the same as "more than."
- #19: The Let statements for any consecutive integer problems are always the same. For this problem, look back at #11.
- #22-26: Refer to the formulas in the box on page 108. For all of these problems, 1) write the formula, 2) fill in the values given, and 3) work it out.

Pages 126-127:

Work to show:

#1-3: Show any work needed.
#5-13: Answers only is ok.
#15-21: Show work.
#23-25: Answers only is ok.
#27-31: Write what the expression is when parentheses are cleared and then combine like terms.
#33-39: Answers only is ok.

Chapter Review – no notes.