Week 4 Algebra 2 Assignment:

Day 1: pp. 60-61 #2, 4-11
Day 2: pp. 67-69 #1-3, 7, 9-11, 13, 15
Day 3: p. 74 #1-17 odd, 21-26
Day 4: pp. 77-79 #2-20 even, 29-33
Day 5: pp. 82-83 #1-11 odd, 13-16, 17-23 odd

Notes on Assignment:

Page 60-61:

Work to show:

For all of these problems you are to 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.) This step is the only one that changes. Sometimes you will need buckets, charts, pictures, etc.
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.)

When doing these word problems, first decide on the type of problem. Then use the examples from your handout as a guide. Always let your variable represent the quantity that you know the least about. For general word equations, one sentence will generally give you the variables, and the other will give you the equation.

#4: Draw the picture as part of step 2. You will need the perimeter formula for a rectangle ($P = 2w + 2l$).

#5: You will have to call one the larger number and one the smaller number.

#6: Supplementary angles have the sum of 180°.

#7: Look on your handout to see how to write the let statements for consecutive odd integers.

#8-10: Fill in the r and t columns of your table from the problem, but the d column comes strictly from the table itself ($r \cdot t$). Put these quantities on your picture.

#11: This is a bucket problem. You are given a total amount for the last bucket, so there's nothing to multiply for it.

Pages 67-69:

Work to show:

#1-7: Show work as needed.

#9-15: Do these problems with 5 steps, numbering each step.

#1: $I = prt$

#2: You have one bucket here. Multiply what's in the bucket to get your amount.

#3: If there are 12 gallons of salt and 18 gallons of water, then altogether you have 30 gallons of the solution. If 12 out of 30 gallons is salt, what % is this? An alternate way of looking at this is to draw the bucket and put 30 in the bottom and x in the top. This bucket when multiplied must give me (i.e. equal) 12 gallons of salt. Solve the equation.

#7: The total interest is given, so in the last bucket there is nothing to multiply.

#10: Be careful here with the percents. Remember that if the variable is representing the percent, it is in decimal form. Thus, if you are going to add 1.5% you must actually add .015.

#13: The interest given here is for 6 months. This is ½ of a year, or 0.5. In your interest buckets we usually have 1 for the *t* amount, but for this one, you will have to use 0.5 for the *t* amount.

#15: Pure acetic acid is 100% acetic acid.

Page 74:

Work to show:

#1-7: Show one number line with the parts graphed above and the answer graphed on the actual number line.

#9-17: As you write the problem down, do any calculations like combining like terms or clearing ( ). Show what is being done to each side as you solve the inequalities.

#21-26: Show any calculations needed.

#1-7: The word “or” means union and “and” means intersection. For union, graph both pieces and put them together on the number line as your final answer. For intersection you are looking for where the pieces overlap. This is what goes on the number line as your final answer.

#9: Solve both pieces first, then take the intersection.

#11-17: You need to carefully solve these inequalities first, then fine their union or intersection. Remember to flip the inequality when you multiply or divide both sides by a negative number.

#21: This is long division.

#22: Factor and cancel.

#23: Use distributive to divide each term by the monomial.

#24-26: Pull out any GCF first. After that, look for backwards FOIL , the sum or difference of cubes, the difference of squares, or grouping.

Pages 77-79:

Work to show:

#2-20: Write each inequality with the flip-n-switch. Then solve each inequality, showing what is done to each side of the equation.

#29-33: The work and steps needed to solve each equation.

#2-20: Remember the key: Less than goes to “and”
Greater than goes to “or”

1. Write the expression down once as is (without the absolute value brackets).
2. Write the correct connecting word.
3. Write the other expressing, doing a “flip and switch.”
4. Solve each inequality.

Note: The alternate form for “less than” is the double inequality (like $-a < x < a$ for $|x| < a$).

#12: Round your answer to the nearest tenth.

#18, 20: Even though these have zeros on the right side, still use the flip and switch. You may be surprised at what you get.

Pages 82-83:

Work to show:

#1-5: Answers only
#7-12: Solve, showing work.
#13-16: 5-step word problems
#17-23: Solve, showing work.

Chapter Review – no notes