Week 25 Algebra 1 Assignment:

Day 1: p. 467 #1-19 odd
Day 2: pp. 470-471 #1-27 odd, 31-35
Day 3: pp. 474-475 #1-17 odd, 21-25
Day 4: pp. 474-475 #2-18 even, omit #10
Day 5: pp. 478-479 #1-34

Notes on Assignment:

Page 467:

General notes for this section: The quadratic formula for solving the equation

$$ax^2 + bx = c = 0 \text{ is } x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Work to show:
#1-9: Write the values of a, b, and c, then write the formula, fill it in, and simplify.
#11-19: Show work needed to get the equation in standard form, then complete the problem using the quadratic formula.

#9: Make sure that you bring the -9 over to the left side of the equation so that you have = 0.

#11-19: Some of these will have radicals in the answer.

Pages 470-471:

General notes for this section: When solving a quadratic equation, get all of the terms on one side so that the equation is of the form $ax^2 + bx = c = 0$. If you can factor it easily, solve by factoring. If not, then use the quadratic formula.

Work to show:
All problems: Show work for whatever method you choose.

#1-7: These will all factor if you want to solve them by factoring.

#9-15: Not all of these will factor.

#19: Since there is no t term, you can solve this equation by taking square roots if you want to. Solve for t^2 and then take the square root of both sides. Don't forget your ±.

#23: You will need to clear the parentheses using FOIL and then get all of the terms on the same side. Then solve the quadratic equation.

#25: You will need to clear the parentheses using Distributive and solve the quadratic equation.

#27: Carefully clean this up by squaring the binomial and the clearing the parentheses.

Pages 474-475:

General notes for this section: Remember your geometry formulas for boxes:

- Perimeter of a rectangle: P = 2L + 2W
- Area of a rectangle: A = LW
- Volume of a box: V = LWH
- Surface area: Find the surface area of each side and the bottom and add these amounts together for the total surface area of a box without a top.

Work to show:

#1-9: Write the formula, fill it in, and work it out.
#11-18: 5-step word problems

#5: Sketch what the box looks like if you flatten it out.

#11-18: These are 5-step word problems. Do these all with one variable.

#11: If you let x equal one number, how do you represent the other number if their difference is 6? (It may help to give yourself an example. If one number is 20, what is the other number if their difference is 6? How did you figure that out?)

#13: This problem is asking for the answer to be integers. When you solve your quadratic you will get one number that is an integer and one that is a fraction. Cross out the one that is a fraction because you are asked only for the integer answer. Because the radical is so large, you can use a calculator to find the answer.

#14: You only have one let statement because you have a square. Let x = the side of the square.

#15: You will need to use the Pythagorean Theorem on this problem. Since it asks for the answer to the nearest tenth, use your calculator to simplify any radicals.

#16: Draw a picture of the flat piece of cardboard with the squares cut out of the corners. From your picture, determine the area of the bottom of the box when the sides are folded up.

#17: This is another problem that will require the use of the Pythagorean Theorem.

#18: Draw your picture. The line from home to 2nd base is your x. You will need to use the Pythagorean Theorem.

#21: What property says you can add the same number to both sides of an equation?

#24: Take care of the negative exponent first and then change it to the correct radical.

#25: This is a 5-step word problem. Remember that when you have a problem that talks about consecutive odd integers you let statements are always x, x+2, x+4.

Pages 478-479:

Chapter Review – no notes.

Work to show:

#1-31: Show work.

#32-33: 5-steps