Week 19 Pre-Algebra Assignment:

Day 1: pp. 366-367 #1-15 M3, 18-32 even
Day 2: pp. 371-373 #2-28 even
Day 3: p. 377 #2-38 even
Day 4: p. 373 #40-49, p. 378 #43-52
Day 5: worksheet

Notes on Assignment:

Pages 366-367 (#1-15 M3, 18-32 even)

Work to show:
#1-15: Show any work needed.
#18-32: Table and graph for each problem.

#1-15: Substitute the x-coordinate in for x and the y-coordinate in for y and see if the equation is true.

#18-32: You can choose any 3 values you want for the x column of your table.

#26: Since you have to multiply your x value times 9/2 I would suggest that you only put even numbers in for x.

#30: I suggest even numbers for x.

#32: Since you have to multiply your x value times ¾ I suggest you use multiples of 4 for your x values in your table.

Pages 371-373 (#2-28 even)

Work to show:
#2-12: Answers only
#14-24: Show the formula for slope and simplify any fraction.
#26-28: Show work for calculating 2 slopes.

General notes for this section:

$$slope = \frac{rise}{run} = \frac{y_2 - y_1}{x_2 - x_1}$$

Remember our rhyme: *"To find the rise, subtract the y's!"*

#2-12: Pick any two convenient points on the line. From one point to the other, determine the rise and run needed to get there.

#14-24: Remember that when you subtract, you must start the subtraction with the x and y from the same point. Also remember that if the denominator = 0 that the fraction is undefined.

#26-28: You need to find the slope from A to B and then again from C to D. Compare these slopes to see if they are the same. If they are, the lines are parallel.

Page 377 (#2-38 even)

Work to show:

#2-6: Substitution and calculations for both
#8-10: 2 answers for each – answers only
#12-14: Show work in solving for y
#16-18: Substitution and calculations for both, and graph.
#20-24: Graphs
#26-38: Show solving for y and then the graph.

Notes for this section: The slope-intercept form of a linear equation is $y = mx + b$ where m is the slope and $(0, b)$ is the y-intercept.

To graph linear equations using the slope-intercept form, you

1. Graph the y-intercept. From that point, use your rise and run to find another point.
2. Connect the points and draw your line.
3. Label the line

Remember our rhyme: *"If there's no run, we put a 1!"*

#2-6: To find the x-intercept let y = 0 and solve. To find the y-intercept let x = 0 and solve.

#8-10: In an equation y = mx + b the slope is m and the y-intercept is (0, b).

#12-14: Solve each equation for y. That means isolate the y-term on one side and then divide to solve for y.

#16-18: To find the x-intercept let y = 0 and solve. To find the y-intercept let x = 0 and solve. Then graph those points and draw the line through them.

#20-22: If the equation is in slope-intercept form it is easy to graph. First graph the y-intercept. Then from that point do your rise and run to find a second point on your line. Draw the line.

Page 373 (#40-49)

Work to show:

#40-44: Show work

#45-49: Show the formula filled in and then the answer.

#48: Remember that the time must be in years, so use 1.5 for t in the formula I=prt.

Page 378 (#43-52)

Work to show:

#43-53: Show work.

Worksheet

You can use a calculator on this assignment!

#1a: Remember how we talked about rise and run in class? Looking at the graph, what is the change in the height for every year? How many feet does the height go up for every year that you go across on the graph?

#1b: Use your answer from part a) above to figure this out. Every year the height goes up the same amount.

#1c: If you look at the graph, the tree is 5 feet at the beginning of the problem. Each year, how many feet are added to its height (answer to problem 1a)? What if you wanted to know how tall it would be in 100 years. What would you multiply and what would you add? Now just take out the 100 and put in *n* for the number of years.

#1d: Use your expression from 1c) for this.

#1e: Graph the growth of the oak on the same graph as the fern. Then using the same thinking as you did for the fern, come up with an expression for its growth.

#1f: Do the same for the fir as you did for the oak in problem 1e).

#2: This problem is very similar to the previous problem. Use the same thinking.

#2d: If you take your expression for the helicopter's height after n minutes, and then set that = 0, you will be able to solve for n to see when the height is 0 (i.e. when the helicopter lands).

#3: Use the same analyzing methods as you did for the other problems.