

Math 8-1

Project #4

Ms. Dowson

Name: _____
October 2014

Due: Friday October 31, 2014

Spot Check: Last Day Thursday October 30, 2014

Write the equation in function form.

1. $8x - 2y - 5 = 11$

2. $9y - 4x - 9 = 0$

Solve the equation, if possible:

3. $\frac{3}{4}x + \frac{1}{8}(x - 5) = \frac{1}{4}$

4. $\frac{1}{4}(9 - 2x) = \frac{1}{8}(3x + 4)$

5. $\frac{32 - x}{x} = \frac{6}{10}$

6. $\frac{4}{x + 1.8} = \frac{6}{x + 4.3}$

7. Evaluate the following expression when $x = -3$.

$$-2x^2 - 5x + 3$$

8. Identify the slope and the y -intercept of the line $2x + 4y = -16$.

9. In a renovation project, a football stadium increased its 60,000-seat capacity by 15%. How many total seats will there be in the stadium when the project is completed?

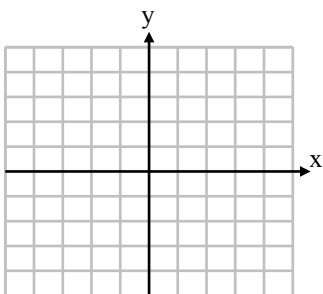
10. Bill has 16 grams of pinto beans that cost \$8.69 per gram. He combines them with 12 grams of green beans to make a mixture worth \$6.50 per gram. How much did the green beans cost per gram?

11. Your digital camera printer printed 5 pictures in 7.5 minutes. At this rate, how long will it take you to print 18 pictures?

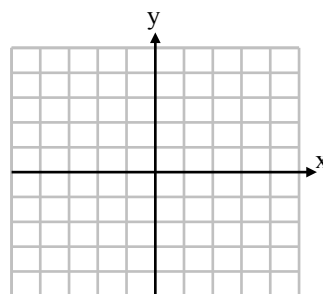
12. Kate and Heather went shopping. Kate bought a pair of shoes that originally cost \$75 on sale for 15% off. Heather bought a dress that originally cost \$125 on sale for 20% off. The sales tax was 4.5%. What was the total they paid the clerk for both items together?

Graph the following equations

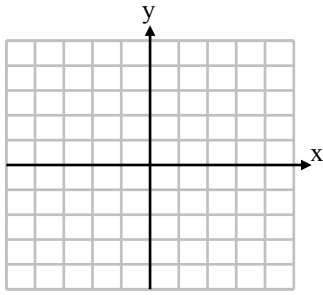
13. $6x + 3y = 18$



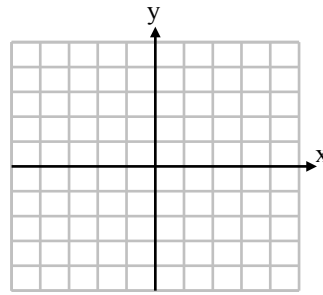
14. $-x + 2 = y$



15. $y = \frac{1}{2}x + \frac{1}{8}$



16. $x = 4$



17. The chart below represents the number of tv stations in a given year since 1996.

Year	1996	1997	1998	1999	2000	2001	2002
TV Stations	1551	1563	1583	1616	1730	1686	1714

- a. Make a scatter plot of the data on your calculator. Describe the relationship. Perform a linear regression to write the equation of the best fit line that models the data since 1996.

- b. Use your best fit line to predict the number of TV stations in 2004. What is this process called?

Extra Credit: Find three consecutive odd integers with a sum of 273 using a linear system.