Name: _____

Date: _____

Algebra 2 Summer Assignment 2009

Required for both Honors and Regular levels.

Bring this COMPLETED assignment ON THE **FIRST DAY** of school.

Solve each equation. (Show steps)

1. $y + 12 = 39$

2. $-2 + (1 + p) = 5$

3. $8z - 11z = 0$

4. $-\frac{1}{2} m = -9$

5. $5a + 3 = a - 13$

6. $3r + 17 = -4$

7. $-10 + 4(3p + 10) = -18$

8. $7s + 11 = 2s + 36$

9. $-8q - 27 = -17q$

Translate each of the following sentences into an equation or inequality.

10. A number z times 2 minus 6 is the same as m divided by 3.

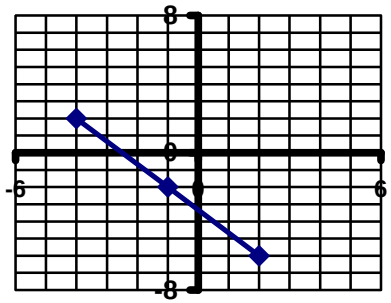
11. Twenty-nine decreased by the product of x and y is the same as z.

12. The sum of a number and negative 6 is greater than 9.

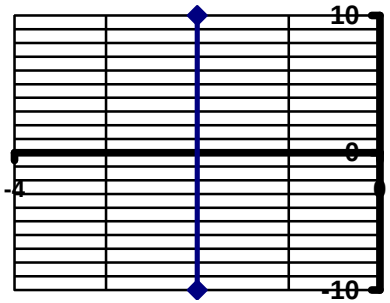
13. Negative one times a number g is no more than –7.

Find the slope for the each of the following graphs. (PAY ATTENTION TO THE SCALES.)

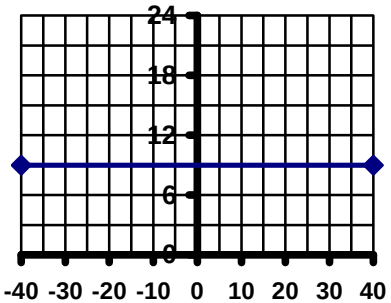
14.



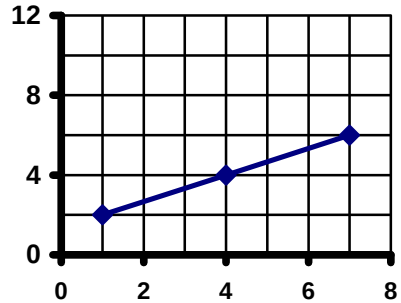
15.



16.

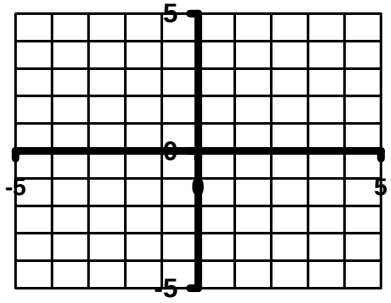


17.

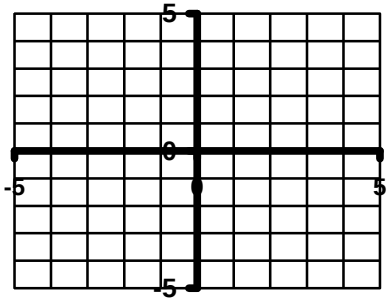


Draw a line with the given slope. (Y-ntercepts can be anything.)

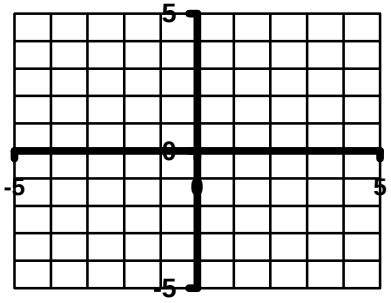
18. slope = $^1/_5$



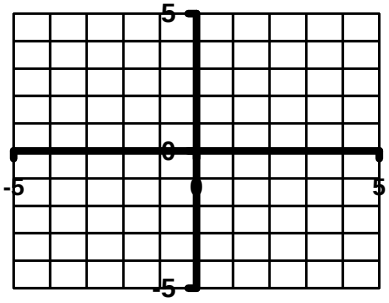
19. slope = 4



20. slope = 1

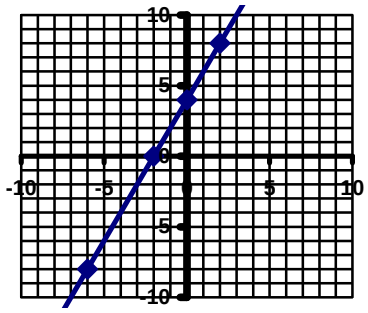


21. slope = -2



Write an equation of the line shown in each graph.

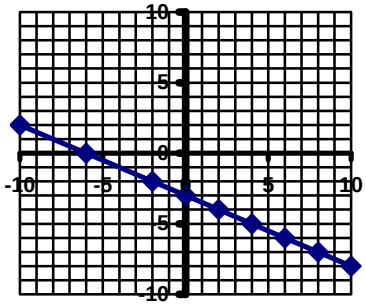
22.



Slope = _____ Y-int = _____

Equation = _____

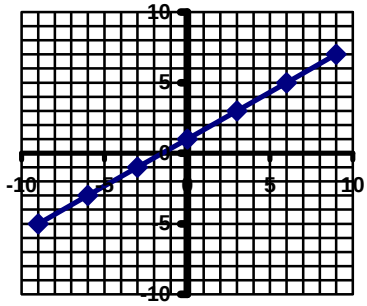
23.



Slope = _____ Y-int = _____

Equation = _____

24.



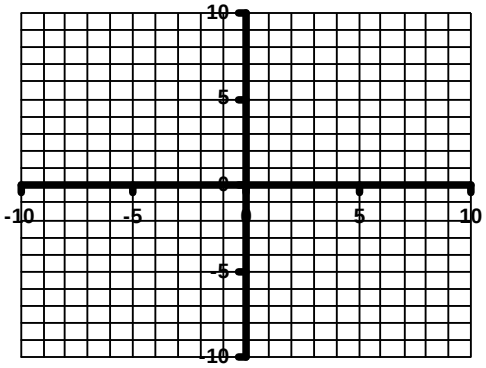
Slope = _____ Y-int = _____

Equation = _____

For each equation, list the y-intercept and slope and then graph.

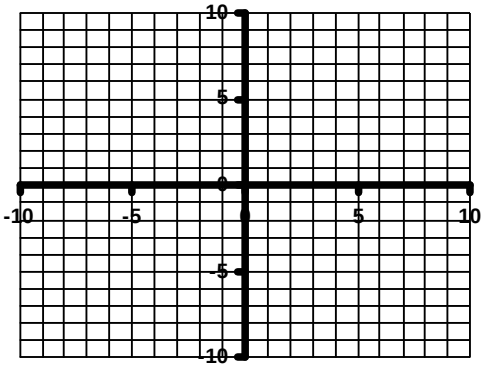
25. $y = {}^{-3}/_{4}\,x + 6$

y-int = _____ Slope = _____



26. $y = 4x - 5$

y-int = _____ Slope = _____



Find the slope determined by the two given points. Use the formula $m = \frac{y_2 - y_1}{x_2 - x_2}$

27. (6, -5) (8, -1)

28. (4, 7) (7, 13)

29. Find the slope of the data represented on thefollowing table.

x	3	6	9	12	15
y	1	0	-1	-2	-3

30. The table below shows the amount of money it costs for the SGA to have n number of buttons made.

Number of Buttons	10	20	30	40	50	60	70
Total Cost	7.25	10.25	13.25	16.25	19.25	22.25	25.25

Use the table to determine how much it would cost to make 150 buttons.

31. The table below shows the Number of hours of studying and the grade received on an exam.

Number of Hours	.5	1	1.5	3.0	4.0
Grade on Exam	54	60	66	84	96

a. Describe the relationship between the number of hours spent studying and the exam grade.

b. What would you expect your score to be if you did not study at all?

c. How much would you expect your score to increase for each HOUR spent studying?

d. Write an equation to model the information from the chart.

e. Predict your grade on an exam if you studied for 2 hours using your equation.