

Linear Relations Review

1. Plot the following coordinates onto a grid that was provided.

a. (1,6)

b. (-5,4)

c. (3,-2)

d. (-8,-3)

e. (-4.5,7.5)

f. (2.5,-1.5)

2. How do we fill out a table of values? Be as specific as you can.

3. Complete the following table of values. Show at least one sample calculation when substituting for y and one sample calculation when substituting for x. Re-order the points in the second table.

$$y = \frac{2}{3}x + 4$$

X	Y
-3	
	8
	-2
0	
	0

*Regroup
(Proper order)* →

X	Y

4. Graph the following horizontal or vertical lines.

a. $y = 4$

b. $x = -6$

c. $y + 3 = 0$

d. $x - 2 = 0$

e. $-y - 1 = 0$

5. What is the general equation for slope-intercept form? Define what each letter stands for.

6. Describe, in words, how you graph a line when given the standard form equation.

7. Graph the following equations onto a grid that was provided. Label each line.

a. $y = 2x + 4$

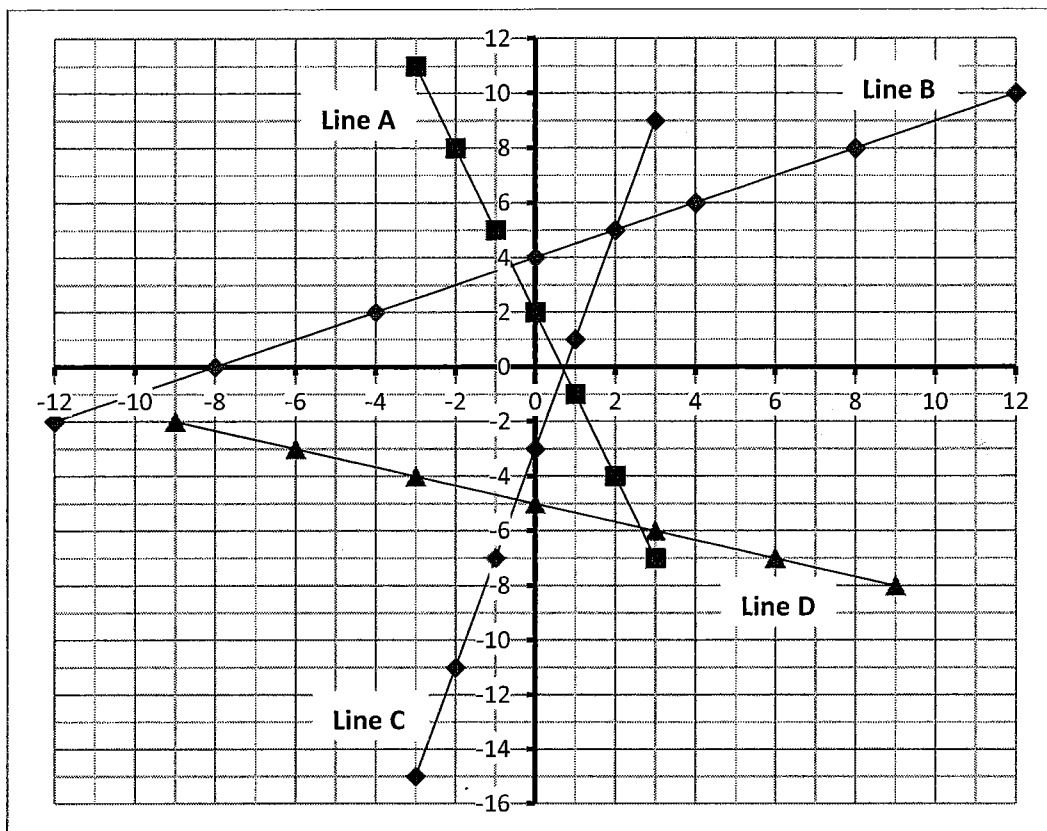
b. $y = -x - 1$

c. $y = \frac{1}{3}x + 2$

d. $y = -\frac{2}{3}x - 5$

e. $y = \frac{1}{2}x - 4$

8. Determine the equation that describes each line on the grid below. Clearly write about how you came to your answer (*like the "How do you know" sections from the previous worksheets and the previous quiz).



9. Convert the following equations from standard form into slope-intercept form. Graph the result on a grid that was provided. More than one line can fit on a single grid.

a. $x + y = 4$

b. $x - y = -2$

c. $2x + y = 1$

d. $x + 2y = 0$

e. $x - 2y = -4$

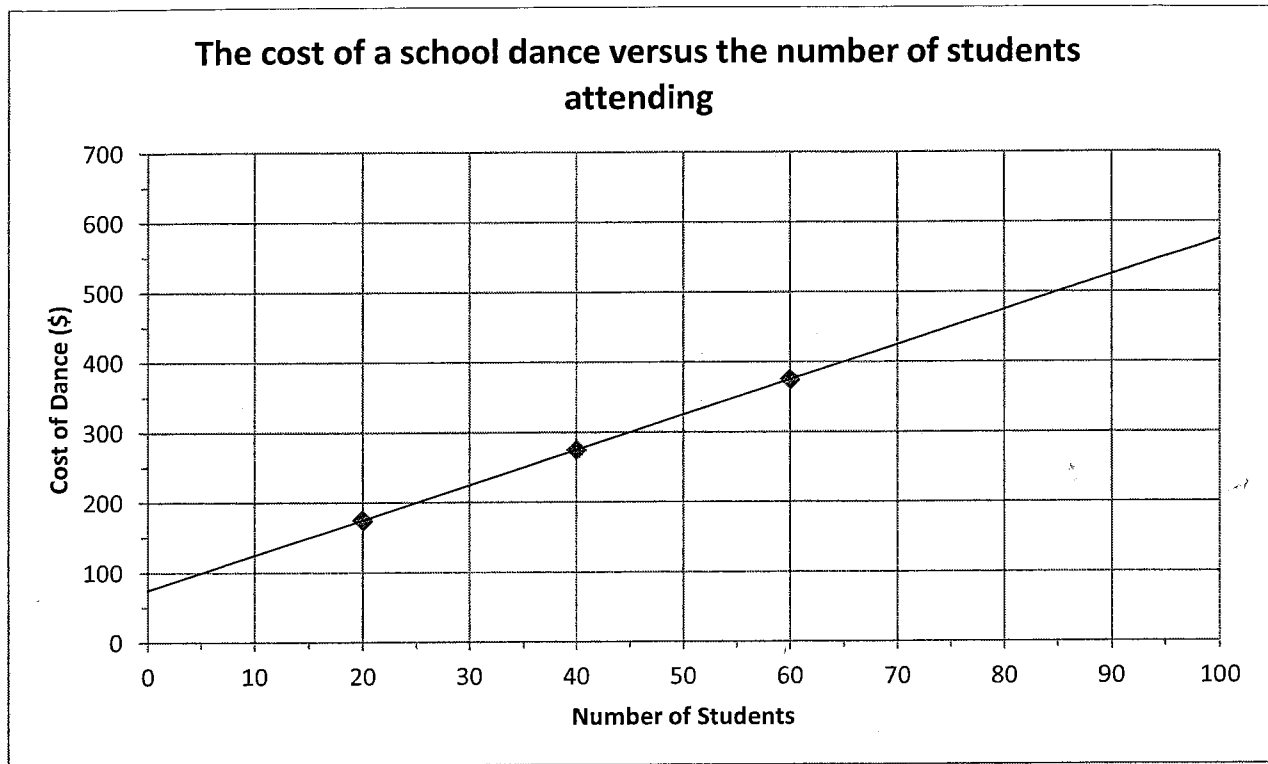
f. $2x + 3y = 6$

g. $5x - 2y = 10$

h. $4y - 12 = 2x$

i. $6x + 9 = 3y$

10. Answer the following interpolation and extrapolation questions about the graph provided below. Explain in words how you came to your answer. Identify whether you are interpolating or extrapolating.



- How much would the dance cost if no one attended?
 - How many students can attend for \$325?
 - How much would it cost for 90 students to attend?
 - How many students can attend for \$125?
 - If you only had a budget of \$500, how many students could attend?
 - Determine the equation that would describe this line ($y = mx + b$).
11. Identify the independent and dependent variables.
- Sam works for Esso and he can choose how many hours he wants to work. The more hours he works, the more money he will make.
 - A person is driving across the country. The further they drive, the more gas they will use.