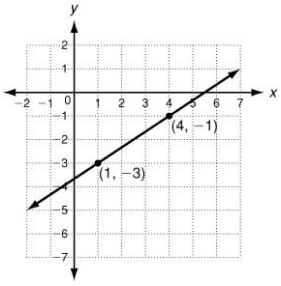
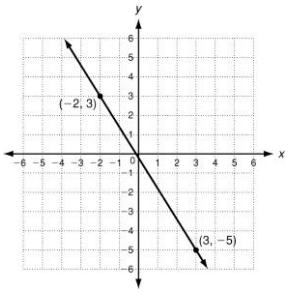
Linear Rate of Change Practice

Name_____ **Class Period**_____

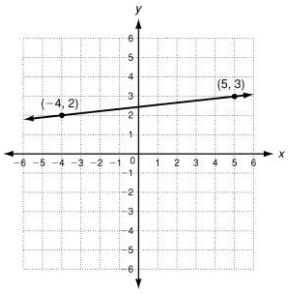
Find the Rate of Change of each line.

1. 

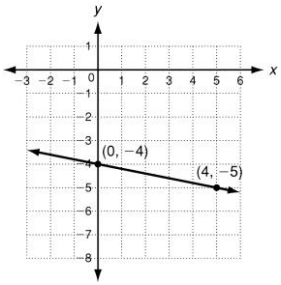
ROC =_____

2. 

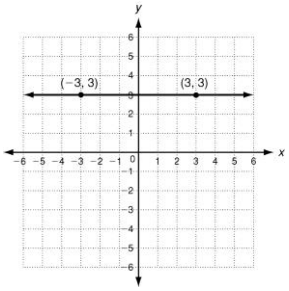
ROC =_____

3. 

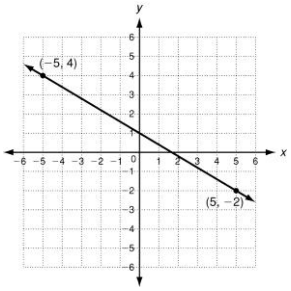
ROC = _____

4. 

ROC =_____

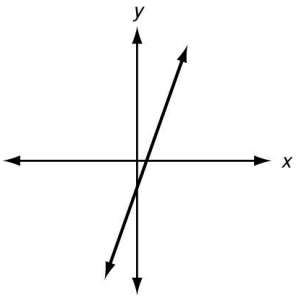
5. 

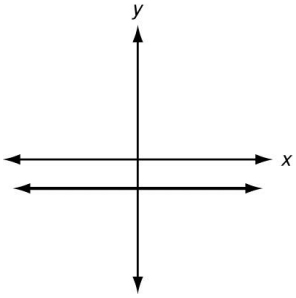
ROC =_____

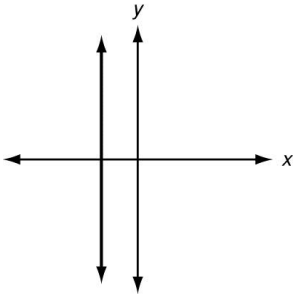
6. 

ROC = _____

Tell whether the slope of each line is positive, negative, zero, or undefined.

7. 

8. 

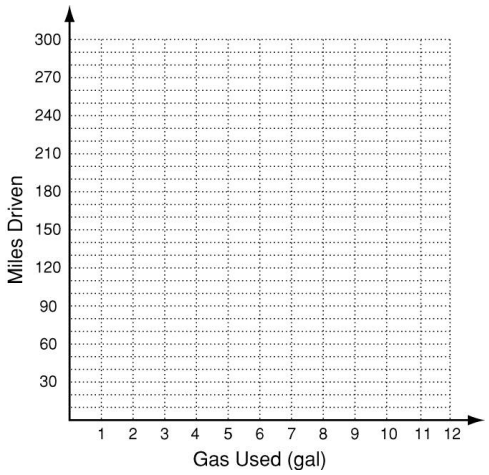
9. 

10. The table shows the distance a car drove on one tank of gasoline.

Miles driven	0	60	150	170	230	260
Gas Used (gal)	0	2	5	6	9	11

a. Graph the data and show the rates of change.

b. The rate of change represents the gas mileage in miles per gallon. Between which two measurements was the car's gas mileage least?



Find the rate of change, given the following information:

11. $f(x) = 2x + 5$; $-3 \leq x \leq 2$

12. $g(x) = 3^x - 1$; $x_1 = 0$ and $x_2 = 2$

13. $h(x) = 4x - 2$; $[-2, 2]$

14. $j(x) = x^2 - 2x + 1$; $[-1, 4]$

15. $b(x) = (\frac{1}{2})^{x+1}$; $-4 \leq x \leq -1$

16. $y = 5x - 3$; $x_1 = -2$ and $x_2 = 3$

17. $d(x) = x^3 + 1$; $[0, 3]$