

Name \_\_\_\_\_ Block \_\_\_\_\_

Ch 5 Review

x and y vary directly. Write the equation.  $y = kx$

1)  $x = 3, y = 12$

2)  $x = 2, y = 1$

3)  $x = -3, y = 2$

4)  $x = -4, y = 28$

5)  $x = -3, y = 2$

6)  $x = 12, y = 3$

Find the equation of the line passing through the given point that has the given slope.

$y = mx + b$

7)  $(3,5), m = -1$

8)  $(7,-2), m = -3$

Use point-slope formula to find the equation of the line  $y - y_1 = m(x - x_1)$

9)  $(-2,6), m = 4$

10)  $(3,1), m = \frac{4}{3}$

11)  $(2,4), m = 3$

12)  $(1,5), m = -\frac{1}{2}$

Find the equation of the line passing through the two points. Use the point-slope formula.

$y - y_1 = m(x - x_1)$

13)  $(2,-1), (1,2)$

14)  $(-4,-1), (-1,2)$

15)  $(-3,-1), (6,-4)$

16)  $(-2,1), (6,3)$

What is the slope of all **parallel** lines to the given equation?

17)  $y = -3x + 7$

18)  $y = \frac{1}{2}x + 2$

19)  $y = \frac{2}{3}x - 11$

20)  $y = -6x$

What is the slope of all **perpendicular** lines to the given equation?

21)  $y = -2x + 5$

22)  $y = 5x + 1$

23)  $y = \frac{1}{3}x - 6$

24)  $y = \frac{3}{4}x - 10$

25) Find the equation of the line passing through  $(3, -2)$  that is **parallel** to  $y = x - 2$

26) Find the equation of the line passing through  $(2, -3)$  that is **perpendicular** to  
 $y = 2x + 3$

Write the equation in Standard form  $Ax + By = C$

27)  $y = 3x + 7$

28)  $2y = -3x - 12$

29)  $y = -\frac{1}{2}x - 5$

30)  $6y - 15 = 3x$

31)  $\frac{1}{4}y - 3x + 6 = 0$

32)  $y = \frac{2}{3}x - \frac{1}{6}$