

Name \_\_\_\_\_

Date \_\_\_\_\_

**Homework #20 (Show all work including formulas and substitutions)** Period \_\_\_\_\_

1) What is the slope of the line that passes through the points  $(2, -3)$  and  $(5, 1)$ ?

(1)  $-\frac{2}{3}$

(2)  $\frac{2}{3}$

(3)  $-\frac{4}{3}$

(4)  $\frac{4}{3}$

2) What is the slope of the line that passes through the points  $(-5, 4)$  and  $(15, -4)$ ?

(1)  $-\frac{2}{5}$

(2) 0

(3)  $-\frac{5}{2}$

(4) undefined

3) What is the slope of the line that passes through the points  $(4, -7)$  and  $(9, 1)$ ?

(1)  $\frac{5}{8}$

(2)  $\frac{8}{5}$

(3)  $-\frac{6}{12}$

(4)  $-\frac{13}{6}$

4) What is the slope of the line represented by the equation  $4x + 3y = 12$ ?

(1)  $\frac{4}{3}$

(2)  $\frac{3}{4}$

(3)  $-\frac{3}{4}$

(4)  $-\frac{4}{3}$

5) What is the slope of the line whose equation is  $3x - 7y = 9$ ?

(1)  $-\frac{3}{7}$

(2)  $\frac{3}{7}$

(3)  $-\frac{7}{3}$

(4)  $\frac{7}{3}$

6) Write the **standard form** of the equation for the line that passes through points  $(-4, -7)$  and  $(5, 1)$ .

$(y - y_1) = m(x - x_1)$ . Then write the equation in slope intercept form.

7) Which equation represents the line whose slope is 2 and whose y-intercept is 6?

- (1)  $y = 2x + 6$
- (2)  $y = 6x + 2$
- (3)  $2y + 6x = 0$
- (4)  $y + 2x = 6$

8) What is an equation of the line that passes through the point  $(-2, -8)$  and has a slope of 3? Hint: First you must use the standard form?

- (1)  $y = 3x - 2$
- (2)  $y = 3x - 22$
- (3)  $y = 3x + 2$
- (4)  $y = 3x + 22$

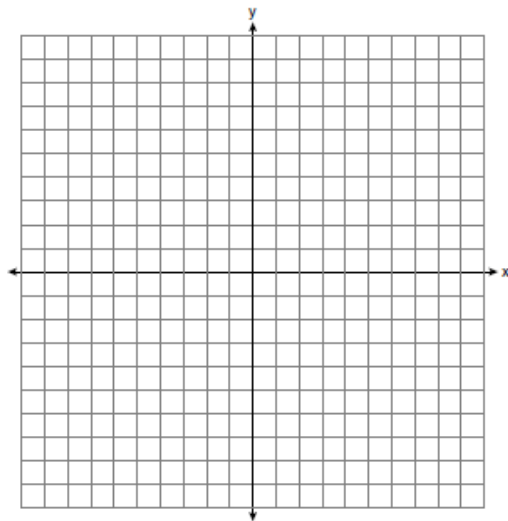
9) Write the equation of the line that passes through the point  $(3, 5)$  with slope  $-4$ .

- (1)  $y = -4x + 17$
- (2)  $y = -4x + 5$
- (3)  $y = 4x + 17$
- (4)  $y = 4x + 5$

10) Given the table find the slope and write the equation of the line in **point slope form** and then manipulate the formula to write the equation in **slope intercept form**.

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

11) Graph  $y = \frac{2}{3}x - 6$   
What is the x - intercept? \_\_\_\_\_



12) Graph  $y = -3x + 9$   
What is the x - intercept? \_\_\_\_\_

