

Name _____
Date _____ Hour _____

UNIT REVIEW

Read and follow all of the directions to help prepare for the test.

Find Slope.

1)

x	y
1	4
3	-2
5	-8

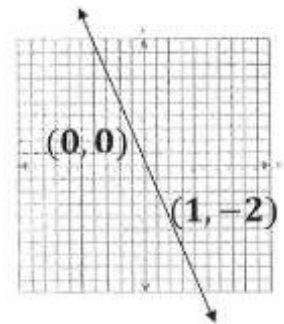
2) (4,1) (-7,1)

3) (14,3) (14,-5)

4) (-1,5) (-6,-5)

5) (-4,-8) (4,8)

6)



Graph the following equations.

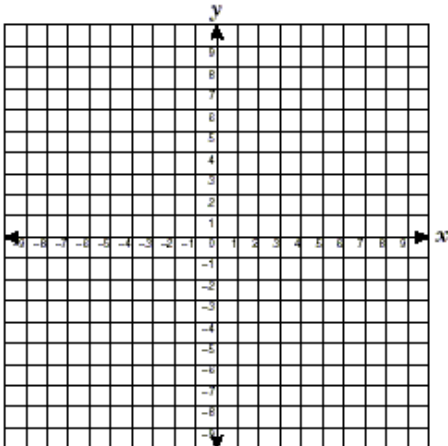
7) $y = -4x$

8) $-\frac{2}{3}x + y = 1$

9) $y + 8 = 0$

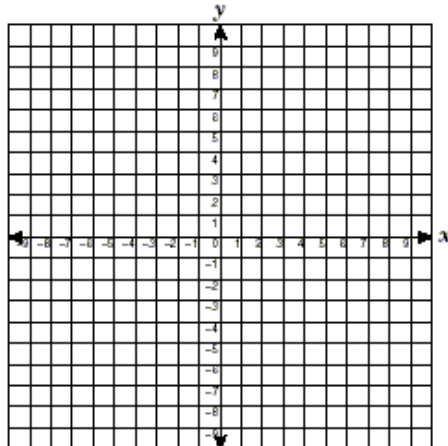
Slope:

y-intercept:



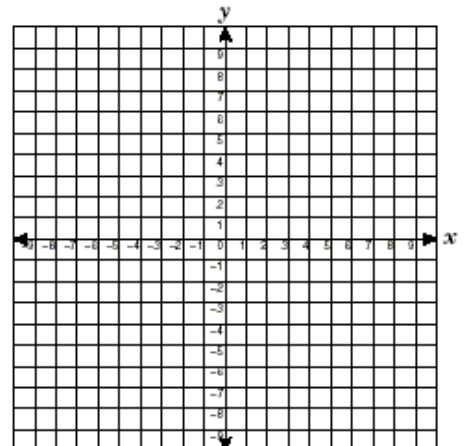
Slope:

y-intercept:



Slope:

y-intercept:



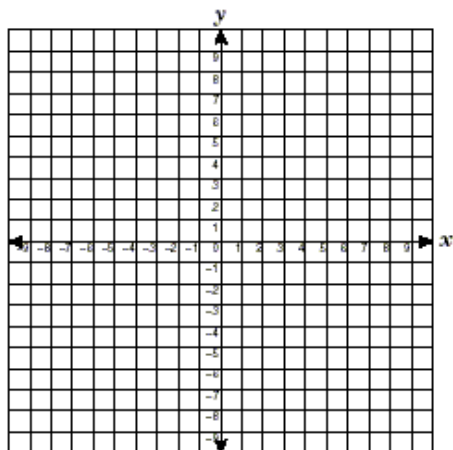
$$10) x - 10 = 0$$

$$11) -5x - 10y = 30$$

$$12) y - 2 = \frac{3}{4}(x + 4)$$

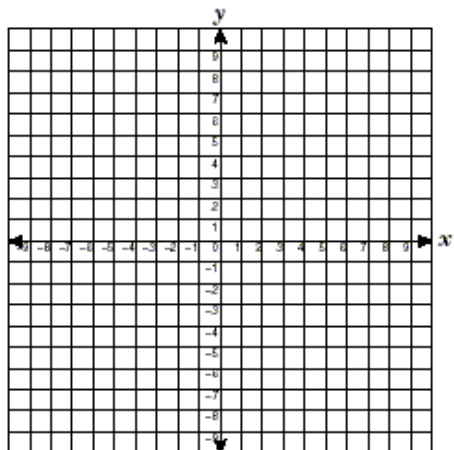
Slope:

x-intercept:



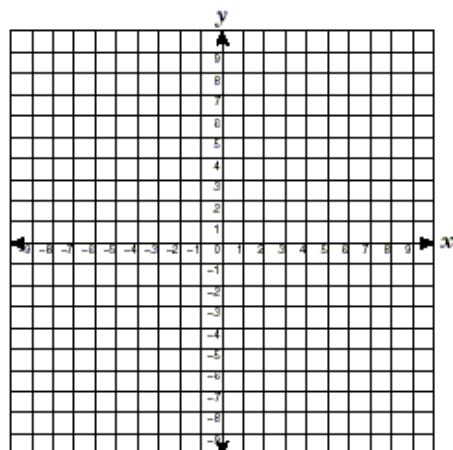
Slope:

y-intercept:



Slope:

y-intercept:



Write an equation in slope-intercept form given the information.

$$13) (0,8) \ m = -1$$

$$14) (-10,4) \ m = -2$$

$$15) (10,-20) \ m = \frac{2}{5}$$

$$16) (-7,8) \ (-6,14)$$

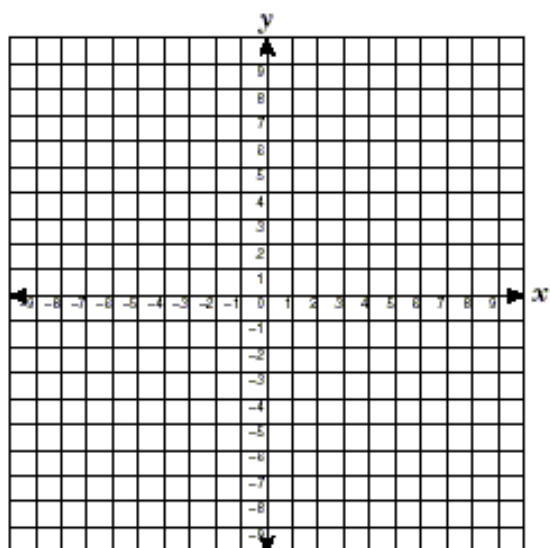
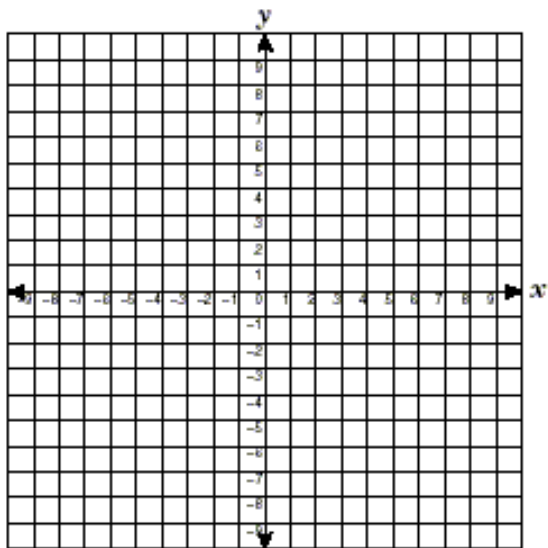
$$17) (-2,9) \ (4,-3)$$

$$18) (6,-2) \ (2,-4)$$

Graph the equation using intercepts.

19) $-7x + 8y = 56$

20) $3x + 4y = 0$



21) Write the slope-intercept equation of the line that is parallel to $y = -2x + 14$ and passes through the point $(3, 8)$.

22) Write the slope-intercept equation of the line that is perpendicular to $y = -2x + 3$ and passes through the point $(4, -6)$

23) Determine if the lines are parallel, perpendicular or neither. Explain your answer:

$$7y = 14x + 21$$
$$-3y + 6x = -12$$

24) What is the slope of any horizontal line? Give an example of a horizontal line and write an equation for it.

25) What is the slope of any vertical line? Give an example of a vertical line and write an equation for it.

26) A skating rink charges \$4.25 to rent a pair of skates plus \$1.50 per hour.

- Write a linear equation to compute the total cost, y , of skating x number of hours.
- Use the equation to find the total cost to skate for 6 hours.
- If your total bill is \$10.25, how many hours did you skate for?

27) If $f(x) = 2x + 8$ and $g(x) = x^2 - 6x$, find the following:

- a. $f(6)$
- b. $g(-2)$

- c. $f(d-2)$
- d. $f(g(1))$

28) James just received a \$40 paycheck from his new job. He spends some of it buying music online and saves the rest in a bank account. His savings is given by $F(m) = 40 - 1.25m$, where m is the number of songs he downloads at \$1.25 per song.

- a.) How many songs can James buy if he wants to save \$30?
- b.) Using this scenario from above, what does $F(5)$ represent?