Name: Answers Period: _____

4.4 – Graphing and Writing Linear Equations

Match the equation with its graph. Identify the slope and y-intercept.

1) $y = 2x - 1$

$m =$ 2

$b =$ -1

Graph: B

2) $y = -x + 2$

$m =$ -1

$b =$ 2

Graph: A

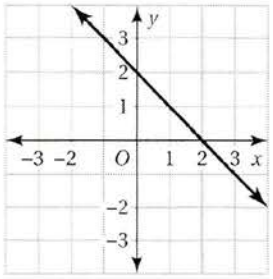
3) $y = -2x - 1$

$m =$ -2

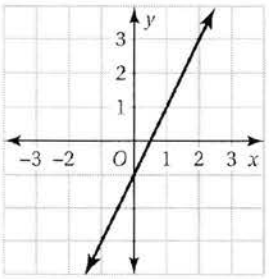
$b =$ -1

Graph: C

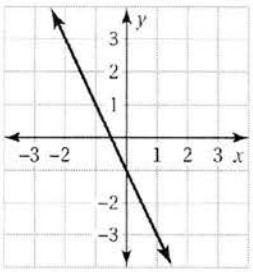
A.



B.

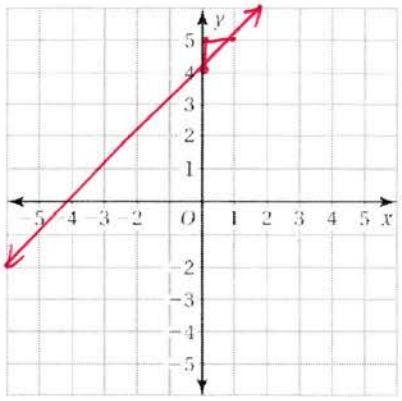


C.

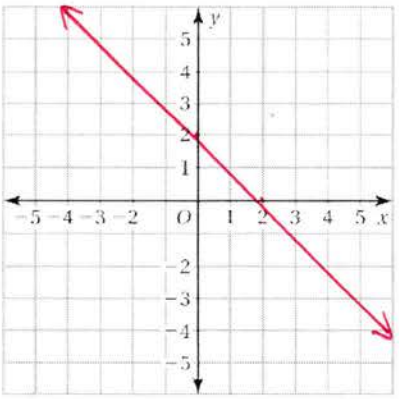


Graph each equation using the slope and the y-intercept only.

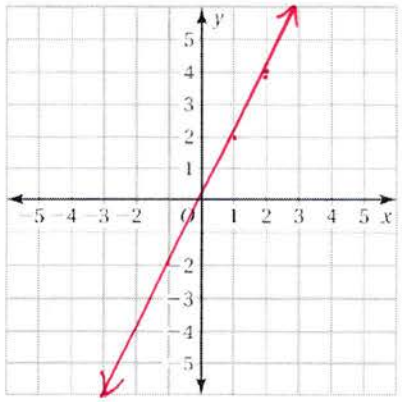
4) $y = x + 4$



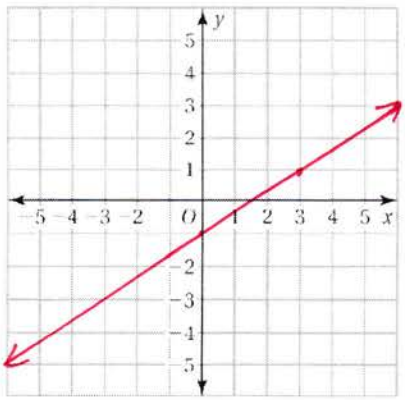
5) $y = -x + 2$



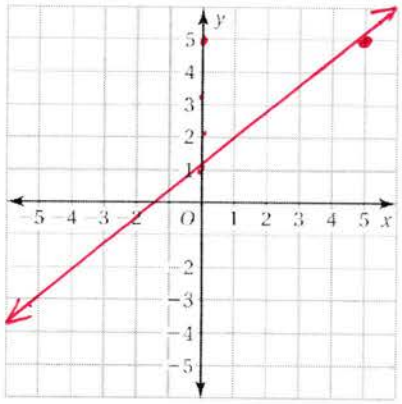
6) $y = 2x$



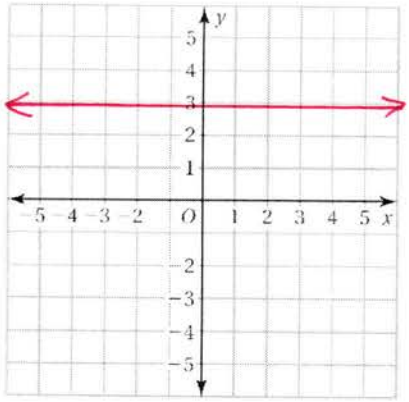
7) $y = \frac{2}{3}x - 1$



8) $y = \frac{4}{5}x + 1$



9) $y = 3$

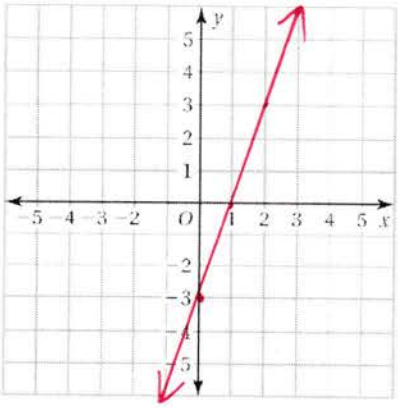


Solve each equation in slope-intercept form. Then graph.

10) $y - 3x = -3$

$+3x \quad +3x$

$y = 3x - 3$

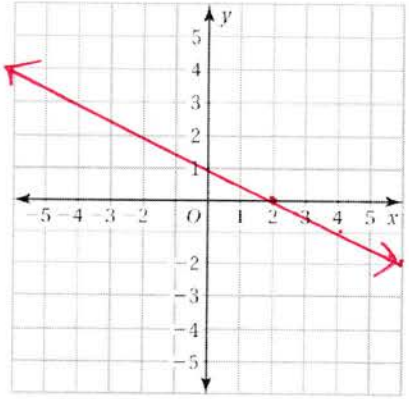


11) $2x + 4y = 4$

$-2x \quad -2x$

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

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



12) The total cost y (in dollars) for entrance into a fair when you go on x rides is represented by the equation $y = 3x + 6$.

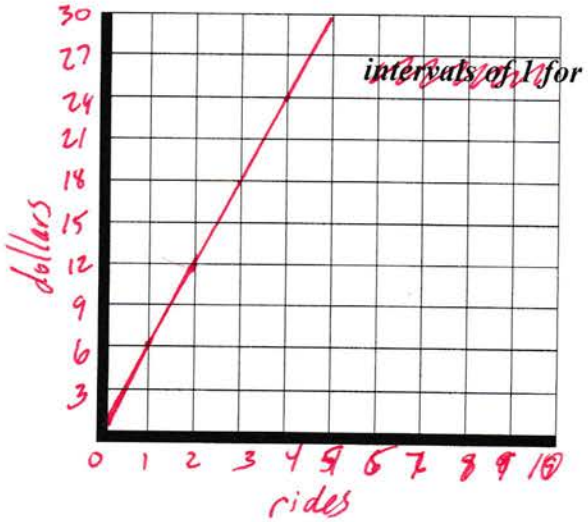
a. Graph the equation ***using intervals of 3 for the y-axis and*** ***intervals of 1 for***

b. Interpret the slope.

the cost for each ride

c. Interpret the y-intercept.

the initial cost for entrance

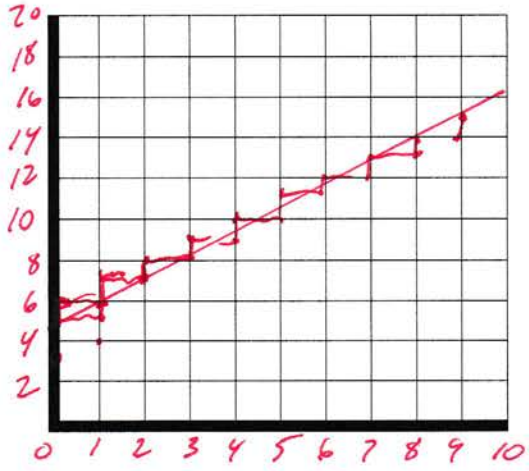


13) There is a \$5 monthly membership fee to download music. There is a \$1 fee for each song downloaded.

a. Write an equation in slope-intercept form that models the cost of downloading x songs per month.

$y = 1x + 5$

b. Graph the equation ***using intervals of 2 for the y-axis and intervals of 1 for the x-axis***.



c. What is the cost of downloading 15 songs?

$y = 1(15) + 5$

$y = 20$

\$20