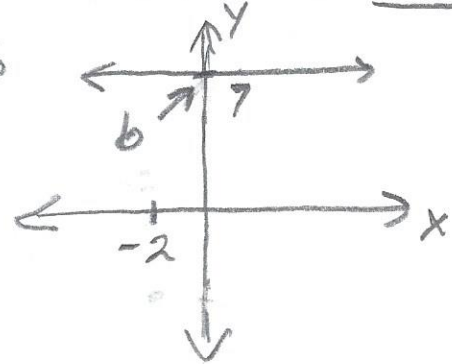


1 What is the equation of the line that passes through the point $(-2, 7)$ and has a slope of zero?

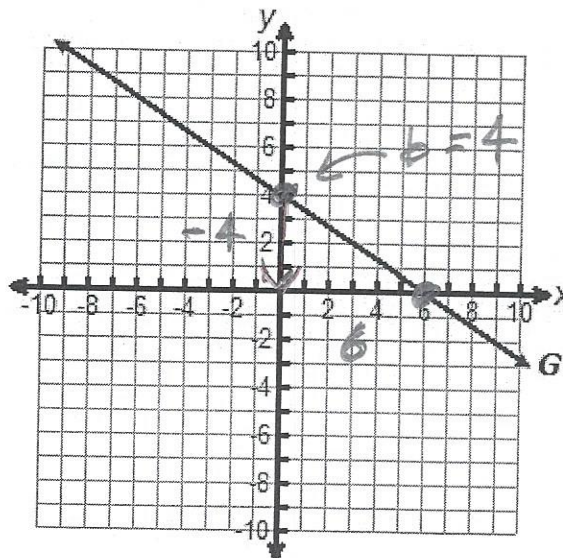
- A $x = 7$
- B $y = -2$
- C $x = -2$
- D** $y = 7$

$\rightarrow m = 0$

$y = mx + b$
 $y = b$
 $y = 7$



2 Line G is graphed on the coordinate plane below.



$m = \frac{-4}{6}$
 $= -\frac{2}{3}$

same slope

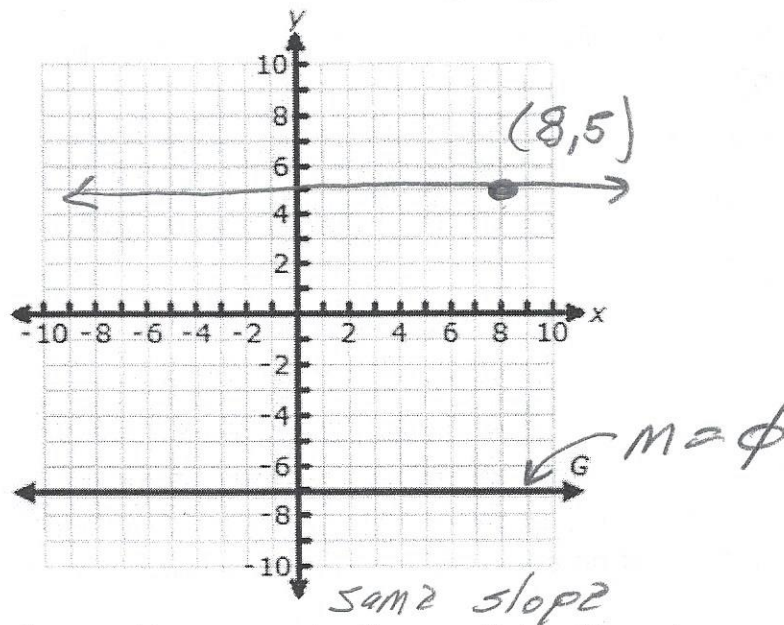
Which linear equation can be used to represent a line parallel to line G passing through the point $(-6, 1)$?

- F $3x + 2y = -16$
- G** $2x + 3y = -9$
- H $2x + 3y = 15$
- J $3x + 2y = 20$

$2x + 3y = -9$
 $\frac{-2x}{-2x} \quad \frac{-2x}{-2x}$

 $3y = -2x - 9$
 $\frac{3y}{3} = \frac{-2x}{3} - \frac{9}{3}$
 $y = -\frac{2}{3}x - 3$
 $\uparrow \quad \uparrow$
 $m \quad b$

3 Line G is graphed on the coordinate plane below.



Which linear equation can be used to represent a line parallel to G passing through the point (8, 5)?

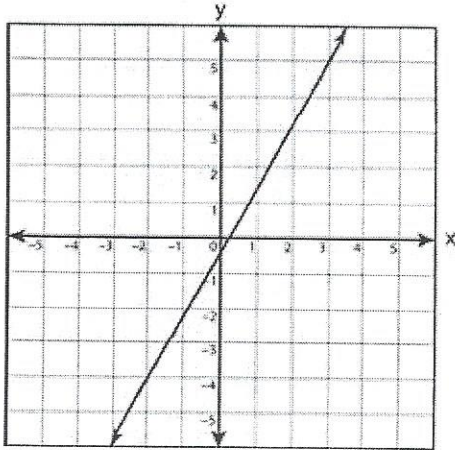
- A $y = x + 8$
- B $y = 5$
- C $y = x + 5$
- D $y = 8$

$$y_G = mx + b$$

$$y_G = 0$$

$$y_P = 5$$

- 4 The line below passes through the points $(-2, -4)$ and $(3, 5)$.



Which of these equations best represents a line parallel to the line in this graph?

F $y = -\frac{9}{5}x + 4$

G $y = -\frac{5}{9}x + 4$

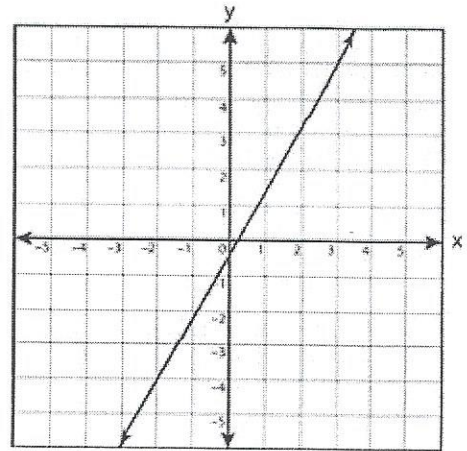
H $y = -\frac{6}{2}x + 4$

J $y = \frac{9}{5}x + 4$

$$m = \frac{(5) - (-4)}{(3) - (-2)}$$

$$m = \frac{9}{5}$$

- ~~5~~ The line below passes through the points $(-2, -4)$ and $(3, 5)$.



Which of these equations best represents a line parallel to the line in this graph?

A $y = -\frac{9}{2}x + 4$

B $y = -\frac{4}{3}x + 4$

C $y = 1x + 4$

D $y = \frac{9}{5}x + 4$

6 Which of the following equations passes through the point (0, -6) and is parallel to the line $6x + 2y = 8$

F $y = -3x - 6$

G $y = 8x$

H $y = 4x + 6$

J $y = x + 8$

$$\begin{array}{r} 6x + 2y = 8 \\ -6x \qquad -6x \\ \hline 2y = -6x + 8 \\ \frac{2y}{2} = \frac{-6x + 8}{2} \\ y = -3x + 4 \end{array}$$

7 Which of the following equations is parallel to $8x - 10y = -2$ and contains (1, -2)?

A $4x - 5y = -2$

B $5x - 4y = 6$

C $4x - 5y = 6$

D $4x - 5y = 14$

$$\begin{array}{r} 8x - 10y = -2 \\ -8x \qquad -8x \\ \hline -10y = -8x - 2 \\ \frac{-10y}{-10} = \frac{-8x - 2}{-10} \\ y = \frac{4}{5}x + \frac{1}{5} \end{array}$$

8 Line b passes through coordinate points (0, 5) and (2, -1). Which of the following functions is parallel to line b and contains point (11, -3)?

F $y = -3x + 21$

G $y = -\frac{1}{3}x + 30$

H $y = -3x + 30$

J $y = \frac{1}{3}x + 28$

$$m = \frac{(5) - (-1)}{(0) - (2)}$$

$$m = \frac{6}{-2} = -3$$

9 Which of the following lines is perpendicular to the line $y = -3x + 2$ and passes through the point (-2, 8)?

A $y = -3x + \frac{26}{3}$

B $y = \frac{1}{3}x + 15$

C $y = \frac{1}{3}x + \frac{26}{3}$

D $5y = 3x + 1$

$$y = -3x + 2$$

↑
m = -\frac{3}{1}

$$m_p = \frac{1}{3}$$

10 Which is an equation for a line that is perpendicular to the graph of the line $y = 2x - 3$?

F $y = 2x + 3$

G $y = -2x - 3$

H $y = \frac{1}{2}x + 3$

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

$$y = 2x - 3$$

↑
m = 2 = \frac{2}{1}

$$m_p = -\frac{1}{2}$$

$$\begin{array}{r} 4x - 5y = 14 \\ -4x \qquad -4x \\ \hline -5y = -4x + 14 \end{array}$$

$$\frac{-5y}{-5} = \frac{-4x + 14}{-5}$$

$$y = \frac{4}{5}x - \frac{14}{5}$$