

6.1 BW answers

Write an equation of the line with the given slope and y-intercept.

1) slope: 2
y-intercept: 9

$$y = 2x + 9$$

2) slope: -3
y-intercept: 0

$$y = -3x$$

3) slope: $\frac{2}{3}$
y-intercept: -9

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

4) Which equation represents the line with a slope of -1 and a y-intercept of 2?

a) $y = -x + 2$ b) $y = 2x - 1$ c) $y = x - 2$ d) $y = 2x + 1$

Write an equation of the line shown. (see book)

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

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

6) $m = \frac{4}{6} = \frac{2}{3}$ $b = -8$

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

7) Describe and correct the error in writing an equation of the line shown. (see book).

$\frac{0-4}{5-0} = \frac{-4}{5}$ They set up slope wrong so $y = \frac{-4}{5}x + 4$

Write an equation of the line shown. (see book)

8) $m = \frac{4}{1} = 4$
 $b = 4$

$$y = 4x + 4$$

9) $m = \frac{-4}{3}$
 $b = 0$

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

Write an equation of the line that passes through the given points.

10) (2, -7), (0, -5)

$b = -5$ $m = \frac{-5 - (-7)}{0 - 2} = \frac{2}{-2} = -1$

$$y = -x - 5$$

11) (0, 4), (8, 3.5)

$b = 4$ $m = \frac{3.5 - 4}{8 - 0} = \frac{-0.5}{8} = -\frac{1}{16}$

$$y = -\frac{1}{16}x + 4$$

Write an equation of the linear function f with the given values.

12) $f(0) = 7$, $f(3) = 1$

$(0, 7)$ $(3, 1)$ $b = 7$ $m = \frac{7 - 1}{0 - 3} = \frac{6}{-3} = -2$

$$y = -2x + 7$$

13) $f(0) = -1$, $f(5) = -5$

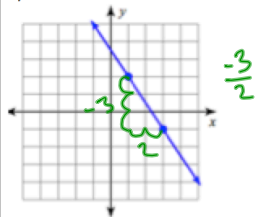
$(0, -1)$ $(5, -5)$ $b = -1$ $m = \frac{-1 - (-5)}{0 - 5} = \frac{4}{-5} = -\frac{4}{5}$

$$y = -\frac{4}{5}x - 1$$

SKILLZ REVIEW

Find the slope of the line.

1)



Simplify.

2) $4(3x + 8) + 2x$

$$12x + 32 + 2x = 14x + 32$$

Solve.

3) $7 = 6 + \frac{x}{9}$

$$-6 = -6 + \frac{x}{9} \quad | +6$$

$$1 = \frac{x}{9} \quad | \cdot 9$$

$$9 = x$$