6.1 BW answers

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

1) slope: 2 y-intercept: 9	2) slope: -3 y-intercept: 0	3) slope: $\dfrac{2}{3}$ y-intercept: -9
$y = 2x + 9$	$y = -3x$	$y = \dfrac{2}{3}x - 9$

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) $m = \dfrac{-1}{2} \quad b = 0$	6) $m = \dfrac{4}{6} = \dfrac{2}{3} \quad b = -8$
$y = -\dfrac{1}{2}x$	$y = \dfrac{2}{3}x - 8$

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

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

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

8) $m = \dfrac{4}{1} = 4$ $b = 4$ $y = 4x + 4$	9)) $m = \dfrac{-4}{3}$ $b = 0$ $y = \dfrac{-4}{3}x$

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

10) (2, -7), (0, -5)	11) (0,4), (8, 3.5
$b = -5$ $m = \dfrac{-5 + 7}{0 - 2} = \dfrac{2}{-2} = -1$ $\boxed{y = -x - 5}$	$b = 4$ $m = \dfrac{3.5 - 4}{8 - 0} = \dfrac{-\frac{1}{2}}{8}$ $= \dfrac{-1}{16}$ $\boxed{y = \dfrac{-1}{16}x + 4}$

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

12) f(0)=7, f(3) = 1	13) f(0)=-1, f(5) = -5
$(0,7)$ $(3,1)$ $b = 7$ $m = \dfrac{7-1}{0-3} = \dfrac{6}{-3} = -2$ $\boxed{y = -2x + 7}$	$(0,-1)$ $b = -1$ $m = \dfrac{-1 + 5}{0 - 5} = \dfrac{4}{-5}$ $(5,-5)$ $\boxed{y = \dfrac{-4}{5}x - 1}$