EXERCISE A
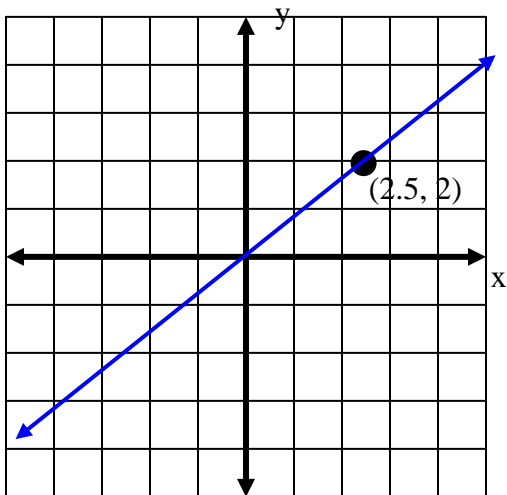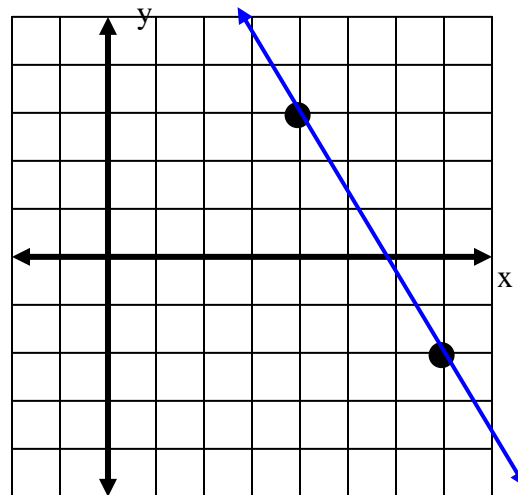
Write an equation in slope intercept form (y = mx + b) for the line that satisfies each set of conditions.

1) slope = 0.5,
   passes through (6, 4)

2) slope = 3,
   passes through (0, -6)

3) slope = -3/5,
   passes through (5, -2)

4) passes through
   (6, 1) and (8, -4)

5) passes through
   (-3, 5) and (-2, 2)

6) parallel to y = -2x – 9,
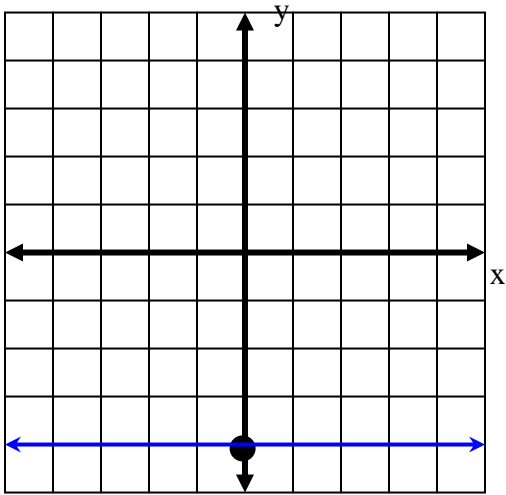   passes through (7, 1)

7)

(2.5, 2)

8)

9) perpendicular to $y = \dfrac{3}{4}x - 2$,
   passes through (2, 0)

10) perpendicular to 2y – 6 = x,
    passes through (-5, 7)
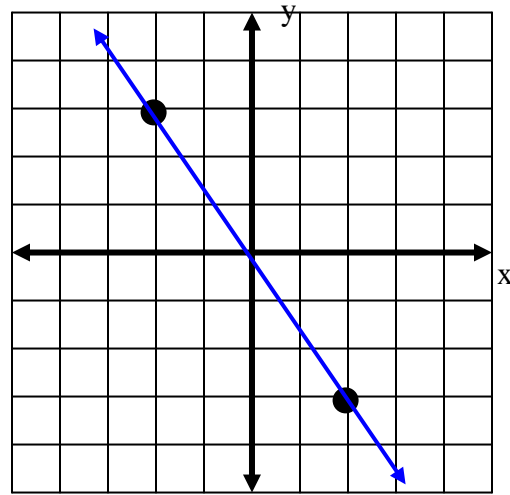
11) y-intercept = 5
    x-intercept = -4

EXERCISE B

Write an equation in slope intercept form (y = mx + b) for the line that satisfies each set of conditions.

12) slope = 3,
    passes through (0, -6)

13) slope = -1/2,
    passes through (1, 3)

14) slope = 3/2,
    passes through (-5, 1)

15) passes through
    (-2, 5) and (3, 1)

16) passes through
    (7, 1) and (7, 8)

17) parallel to y = 2/3x + 5,
    passes through (4, 6)

18)

19)

20) passes through (2, -5), perpendicular to $y = \dfrac{1}{4}x + 7$

21) x-intercept = -4, y-intercept = 4

22) x-intercept = $\dfrac{1}{3}$, y-intercept = $-\dfrac{1}{4}$

EXERCISE C

Write an equation in slope intercept form (y = mx + b) for the line that satisfies each set of conditions.

23) passes through (6, -5), perpendicular to the line whose equation is $3x - 0.2y = 3$

24) passes through (-3, -1), parallel to the line that passes through (3, 3) and (0, 6)

25) Ice forms at a temperature of 0° C, or at 32° F. The boiling point of water occurs at 100° C which corresponds to 212° F.

a) Write a linear equation in slope-intercept form that gives the number of **y** degrees Fahrenheit in terms of **x** degrees Celcius.

b) What temperature corresponds to 20° C?

c) What temperature is the same on both scales?

ANSWERS:
1) y = 0.5x + 1   11) y = 5/4x + 5   21) y = x + 4
3) y = -3/5x + 1   13) y = -1/2x + 7/2   23) y = -1/15x – 23/5
5) y = -3x – 4   15) y = -4/5x + 17/5   25a) y = 9/5x + 32
7) y = 0.8x   17) y = 2/3x + 10/3   b) 68° F
9) y = -4/3x + 8/3   19) y = -3/2x   c) -40°