Name: _____ Period: _____
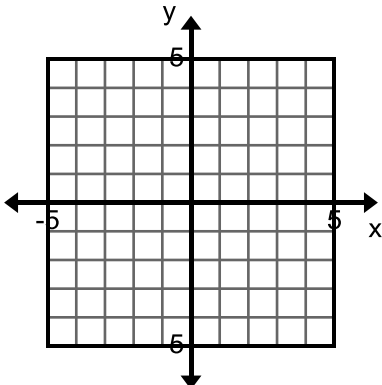
HW 2-4: Slope-Intercept Form

Identify the slope (*m*), *y*-intercept (*b*) and then graph the equation.

1. $y = \dfrac{4}{5}x - 1$

m = _____

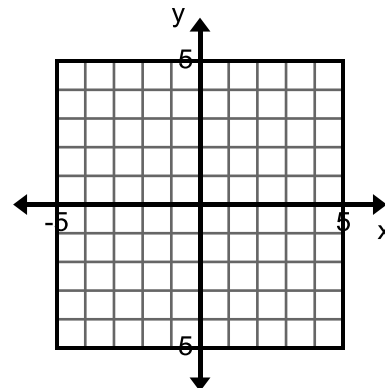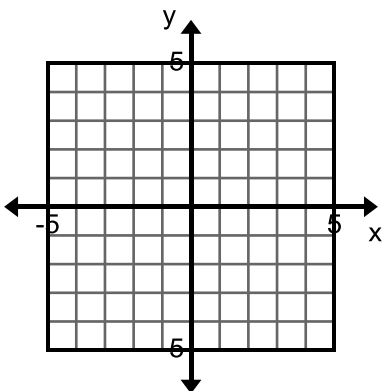*b* = _____

5. $y = x$

m = _____

b = _____
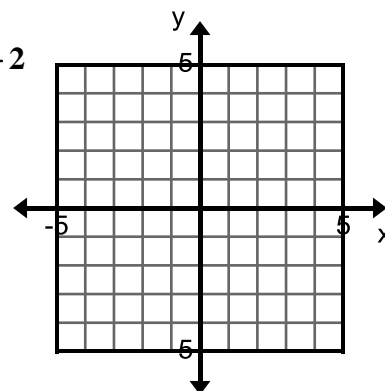

2. $y = -\dfrac{7}{5}x + 4$

m = _____

b = _____

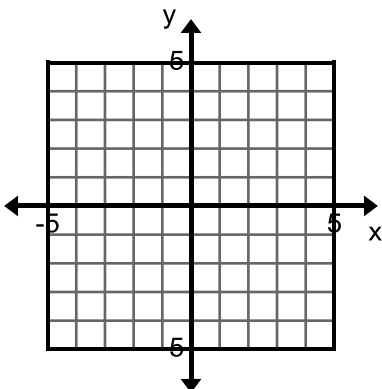

6. $y = \dfrac{1}{3}x - 2$

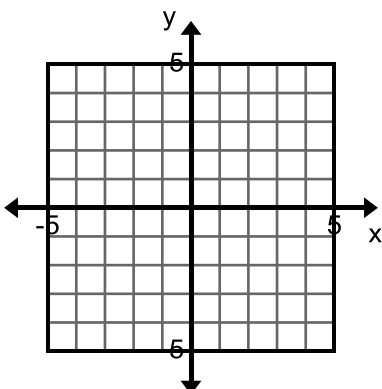

3. $y = 3x - 5$

m = _____

b = _____

7. $y = -x + 4$
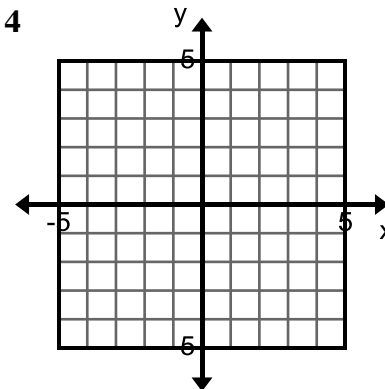
4. $y = -2x + 2$

m = _____

b = _____

8. $y = 4x - 3$
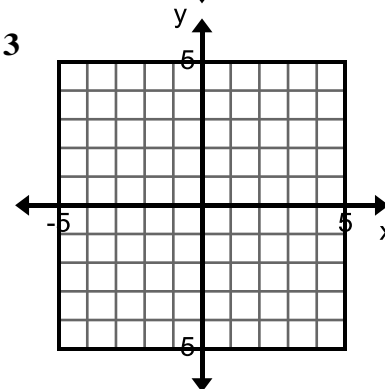
Given the graphs, identify the slope (*m*), *y*-intercept (*b*) and write the equation of the line.

9.
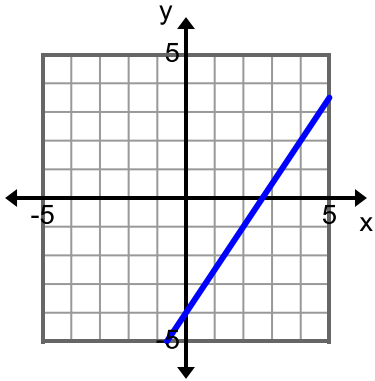
m = _____   *b* = _____

Equation: _____

12.
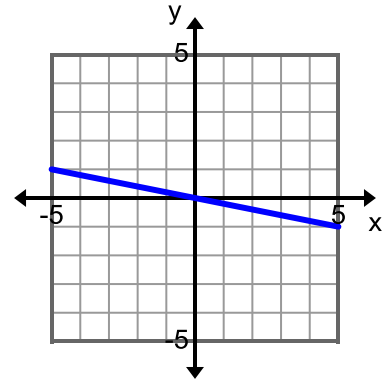
m = _____   *b* = _____

Equation: _____

10.
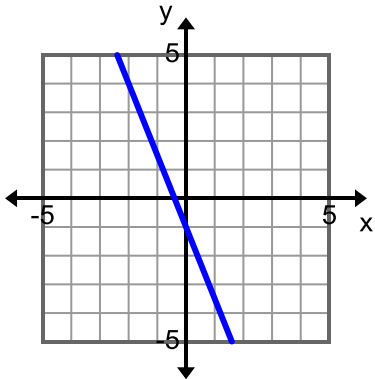
m = _____   *b* = _____

Equation: _____

13.
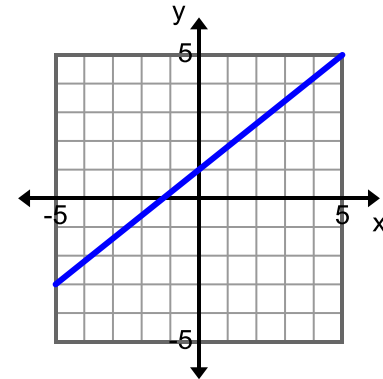
Equation: _____

11.
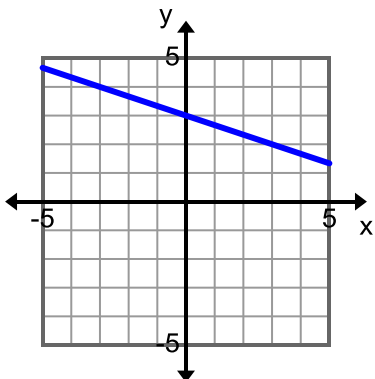
m = _____   *b* = _____

Equation: _____

14.
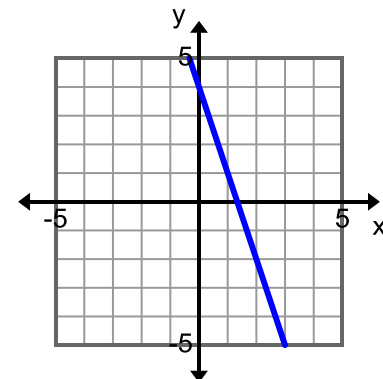
Equation: _____

Write an equation for each line given the table below.

15.

x	y
−5	25
0	30
5	35
10	40

Equation: _____

16.

x	y
−2	−8.50
0	0
1	4.25
3	12.75

Equation: _____

17.

x	y
0	5
100	6
300	8
1500	20

Equation: _____

18.

x	y
−10	5
−3	5
0	5
2	5
7	5

Equation: _____

19.

x	y
−2	4
−1	1
0	−2
2	−8

Equation: _____

20.

x	y
−4	−13
−4	−8
−4	0
−4	3
−4	9

Equation: _____

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

21. slope: $\dfrac{1}{2}$; y-intercept: **6**

22. slope: **−2**; y-intercept: **3**

23. The Viera family is traveling from Philadelphia to Orlando for vacation. The equation $y = 1000 - 50x$ represents the distance in miles remaining in their trip after x hours.

    a. Graph the equation.

   **b.** Interpret the slope and the y-intercept
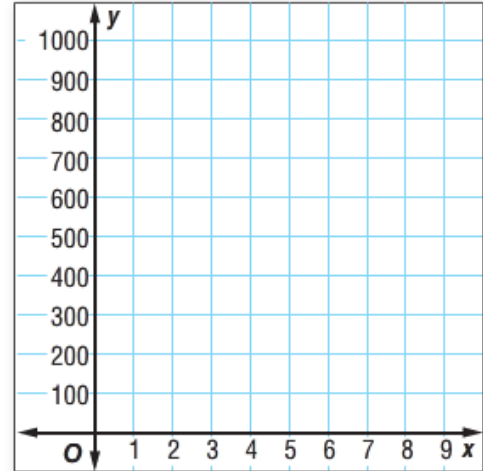
24. The Lakeside Marina charges a $35 rental fee for a boat in addition to charging $15 an hour for usage. The total cost y of renting a boat for x hours can be represented by the equation $y = 15x + 35$.

    a. Graph the equation.

    b. Interpret the slope and the y-intercept
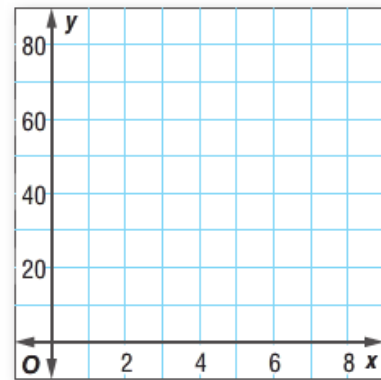
25. Which statement could be true for the graph below?

Sales (thousands of dollars)
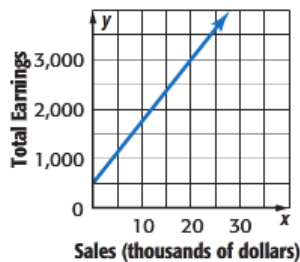
  Ⓐ Mr. Blackwell will earn $1,750 if his sales are $10,000.

  Ⓑ Ms. Chu will not earn any money if she has no sales.

  Ⓒ Mr. Montoya earns $250 for every $1,000 he sells.

  Ⓓ Ms. James earns $2,500 if she sells $2,500 worth of merchandise.

26. Jaquie has 20 postcards in her collection. She decides that from now on, every time she goes on vacation she will buy 8 postcards to add to the collection. The total number of postcards y can be represented by the equation $y = 8x + 20$. What does the slope represent?

  Ⓕ the total number of postcards

  Ⓖ the number of postcards when she began collecting

  Ⓗ the number of vacations

  Ⓘ the number of cards she buys on each vacation