Name_____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.
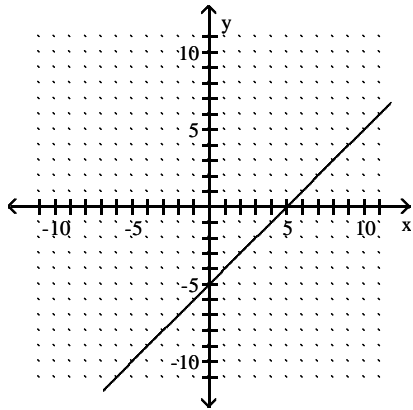
BONUS QUESTION 1. Question 2 is not a bonus: Write the equation of a line through the given points .

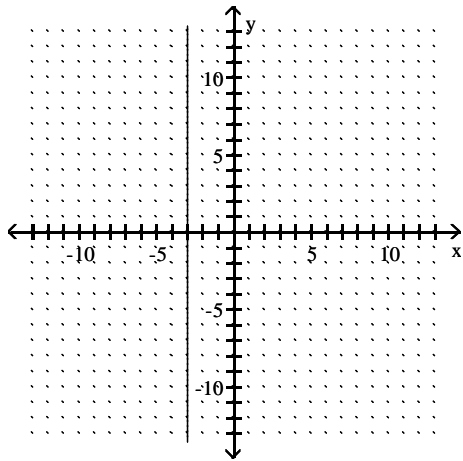   1) (5, 3), (−2, 5)   1) _____

    2) (−7, 0), (0, −7)   2) _____

Write the equation of the line in slope –intercept form.

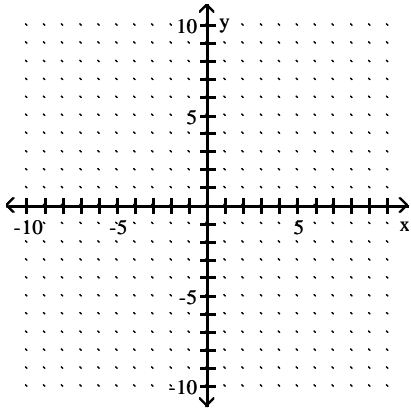   3)   3) _____

    4)   4) _____

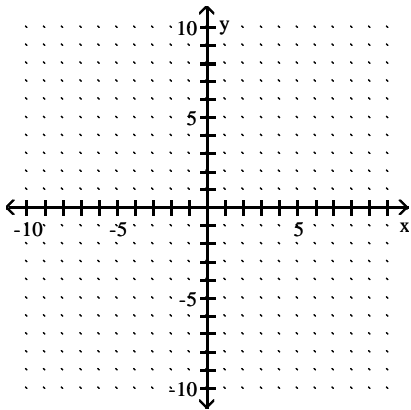**Graph using the x– and y–intercepts.**

5) $2x - y = 4$

5) _____

6) $y = -8$

6) _____

Write the equation of a line in slope –intercept form with the given slope passing through the given point.
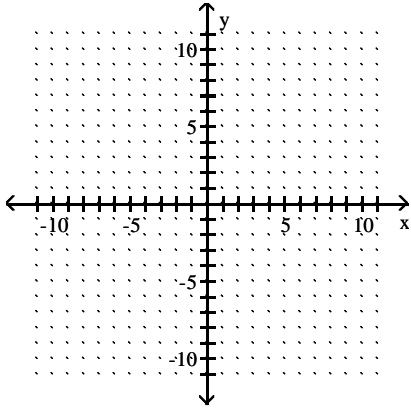
7) $m = \dfrac{4}{5}$; $(0, 5)$

7) _____

8) $m = \dfrac{5}{3}$; $(0, 6)$

8) _____
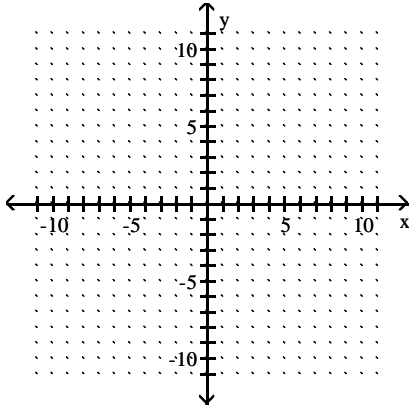
Graph the equation.

9) $y = -\dfrac{1}{2}x$

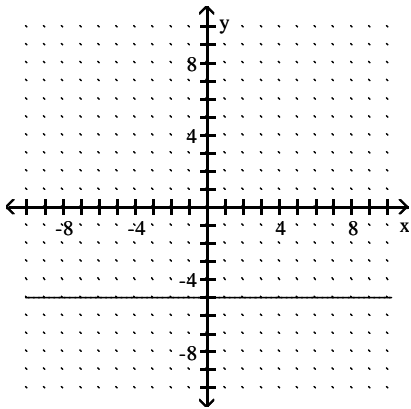
9) _____

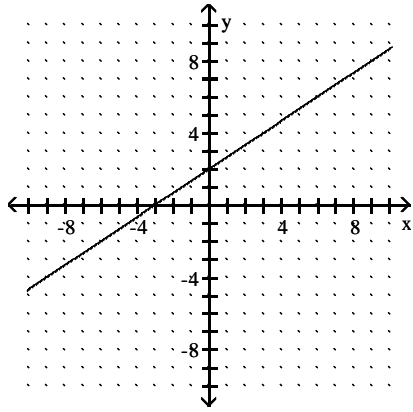10) $x = -3$

10) _____

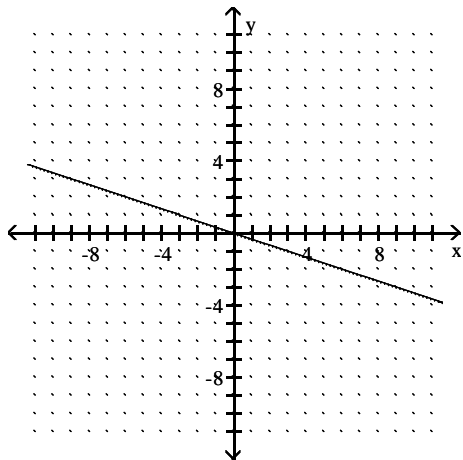**Find the y–intercept.**

11)

11) _____

12)

12) _____

13)

13) _____

Write the equation of the line in slope –intercept form given the slope and the coordinates of the y –intercept.

14) m = 0; (0, 5)

14) _____

15) m = –3.1; (0, 7.25)

15) _____

Write the equation of the line in slope –intercept form given the y –intercept and one other point.

16) (–4, 7), (0, 2)

16) _____

17) (–2, –8), (0, –2)

17) _____

Find the value of the function.

18) Given $f(x) = 6x^2 - 4x + 3$, find f(2).

18) _____

19) Given $f(x) = \dfrac{9x^2}{x - 6}$, find f(6)

19) _____

4

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Choose the answer that lists three solutions for the equation.

20) $3x + 5y = 30$ 20) _____
- A) (0, 6), (10, 0), (3, 5)
- B) (1, 6), (10, 1), (1, 30)
- C) (1, 5), (3, 1), (0, 30)
- D) (0, 6), (10, 0), (5, 3)

21) $y = 5$ 21) _____
- A) (4, 5), (8, 5), (−8, 5)
- B) (4, 5), (5, 8), (−8, 5)
- C) (5, 4), (5, 8), (5, −8)
- D) (4, 5), (8, 5), (−8, 0)

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Write the equation of a line connecting the given points in slope –intercept form.

22) (−7, −3), (10, 7)   22) _____

23) (9, −5), (9, −7)   23) _____

Find the slope of the line through the given points.

24) (1, 6), (−8, −9)   24) _____

25) (−3, −8), (−3, 2)   25) _____

Determine the domain and range of the relation.

26) {(4, −3), (6, −7), (2, −9), (1, −3)}   26) _____

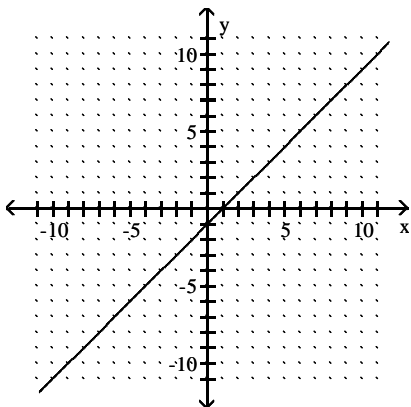27) {(9, −4), (4, −2), (8, −5), (0, 0)}   27) _____

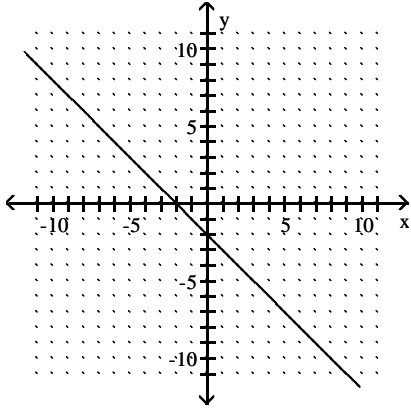**Find the slope of the line.**

28)   28) _____

29)

29) _____

Determine if the relation is a function.

30) {(−5, 5), (−3, 8), (2, −5), (2, 3)}

30) _____

31) {(−7, −2), (−7, −7), (2, 8), (4, 9)}

31) _____

Find the x– and y– intercepts.

32) $-x + \dfrac{5}{8}y = -5$

32) _____

33) $3x - 4y = 5$

33) _____

Determine whether the given lines are parallel, perpendicular, or neither.

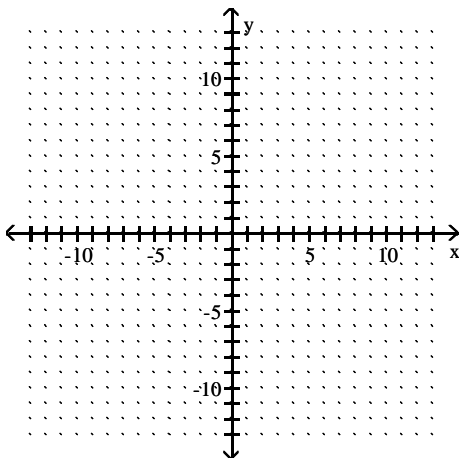34) $y = x - 8$
$y = -x$

34) _____

35) $y = 9x - 5$
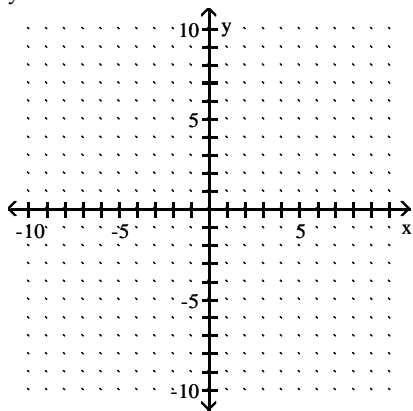$y = -9x + 3$

35) _____

Determine the slope and the y –intercept. Then graph the equation.
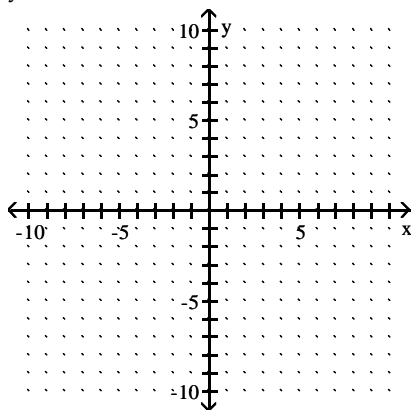
36) $y = -\dfrac{1}{2}x + 3$

36) _____

6

37) $y = -3x + 5$

37) _____

38) $y = 2x - 7$

38) _____

BONUS: Write the equation of a line that passes through the given point and is parallel to the given line. Write the equation in slope–intercept form..

39) $(1, -5); y = 4x - 2$

39) _____

Write the equation of a line that passes through the given point and is perpendicular to the given line. Write the equation in slope–intercept form .
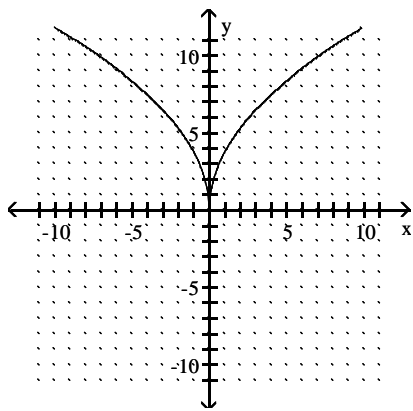
40) $(-8, -4); 2x - 5y = 7$

40) _____

Determine if the relation is a function.

41)

41) _____

Provide an appropriate response.

42) If a circle with a diameter of 10.2 units were to be drawn in the coordinate plane with its center at the origin, what would be the coordinates of its x– and y–intercepts?
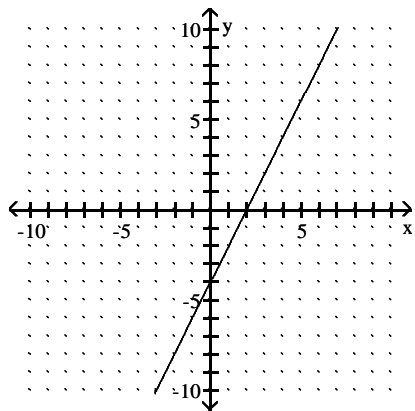
42) _____

1) $2x + 7y = 31$
2) $x + y = -7$
3) $y = x - 5$
4) $x = -3$
5)

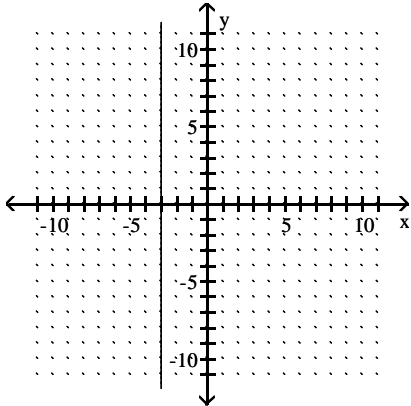6)

7) $y = \dfrac{4}{5}x + 5$

8) $y = \dfrac{5}{3}x + 6$

9)
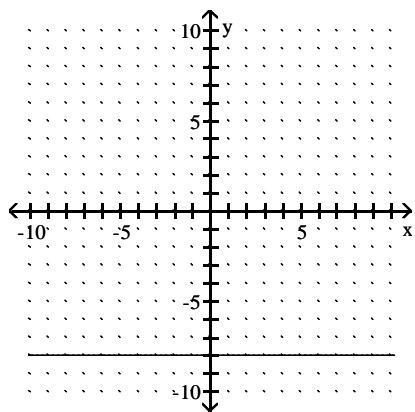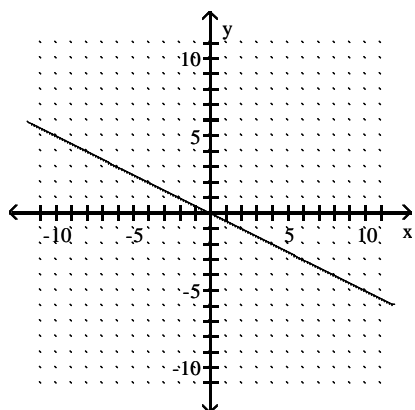
10)

11) (0, –5)

12) (0, 2)

13) (0, 0)

14) y = 5

15) y = –3.1x + 7.25

16) $y = -\dfrac{5}{4}x + 2$

17) y = 3x – 2

18) 19

19) Undefined

20) D

21) A

22) $y = \dfrac{10}{17}x + \dfrac{19}{17}$

23) x = 9

24) $\dfrac{5}{3}$

25) Undefined

26) Domain: {4, 6, 2, 1}; Range: {–3, –7, –9}

27) Domain: {9, 4, 8, 0}; Range: {–4, –2, –5, 0}

28) 1

29) –1

30) No

31) No

32) (5, 0), (0, –8)

33) $(\dfrac{5}{3}, 0)$, $(0, -\dfrac{5}{4})$
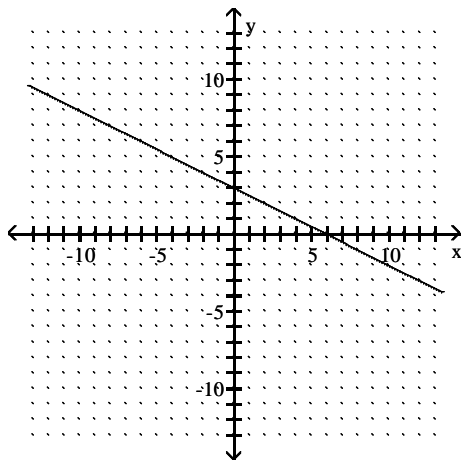
34) Perpendicular

35) Neither
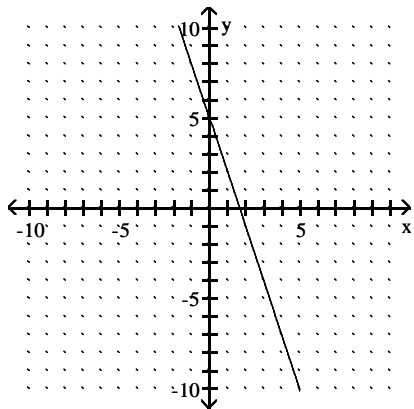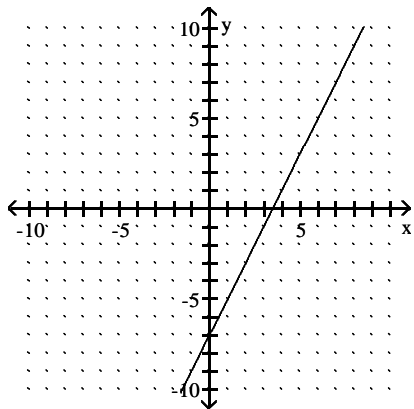
36) $m = -\dfrac{1}{2}$; y–intercept: (0, 3)

37) m = –3, y–intercept: (0, 5)

38) m = 2, y–intercept: (0, – 7)

39) y = 4x – 9
    4x – y = 9

40) $y = -\dfrac{5}{2}x - 24$

    5x + 2y = –48

41) Yes

42) (–5.1, 0), (5.1, 0), (0, –5.1), (0, 5.1)