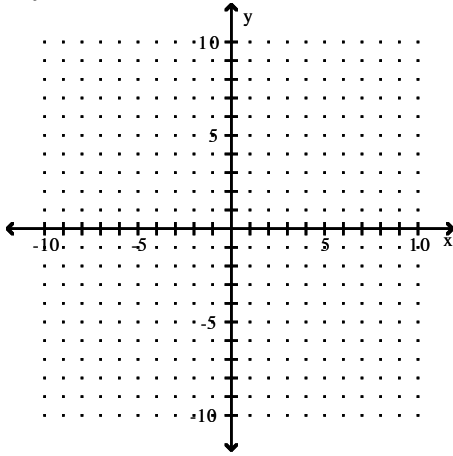More practice problems from 1.4–1.6

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

Graph the line, finding intercepts to determine two points on the line.
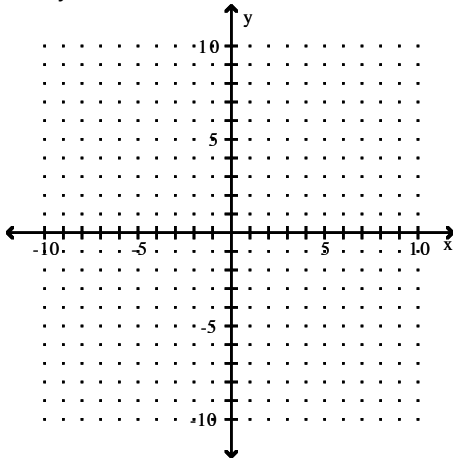
1) $10y - 2x = -8$

1) _____

2) $8x - y = -3$

2) _____

Write the equation in the form $y = mx + b$.

3) $-3x + 2y = 1$

3) _____

Find the equation of the line satisfying the given conditions, giving it in slope–intercept form if possible.

4) Through (–5, –2), parallel to $8x - 3y = -31$

4) _____

Solve the problem.

5) Marty's Tee Shirt & Jacket Company is to produce a new line of jackets with an embroidery of a Great Pyrenees dog on the front. There are fixed costs of $630 to set up for production, and variable costs of $36 per jacket. Write an equation that can be used to determine the total cost, C(x), encountered by Marty's Company in producing x jackets.

5) _____

Find the zero of the function f.

6) $f(x) = 4x + 8$

6) _____

Solve the equation analytically.

7) $4x + 20 = 3x + 4$ 7) _____

8) $(x - 9) - (x + 6) = 6x$ 8) _____

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

Classify the equation as a contradiction, an identity, or a conditional equation.

9) $5(4x - 16) = 20x - 80$ 9) _____

    A) Identity   B) Conditional   C) Contradiction

10) $5(x + 9) - 2(x + 9) = 3x + 27$ 10) _____

    A) Identity   B) Conditional   C) Contradiction

11) $-[x - (-2x + 8)] = 3 - (-9x + 6)$ 11) _____

    A) Contradiction   B) Conditional   C) Identity

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

Solve the inequality analytically, writing the solution set in interval notation.

12) $5x - 3 \geq 4x + 1$ 12) _____
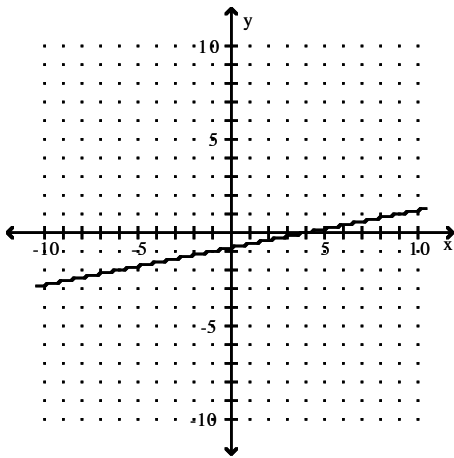
13) $18a - 30 > 6(2a - 3)$ 13) _____

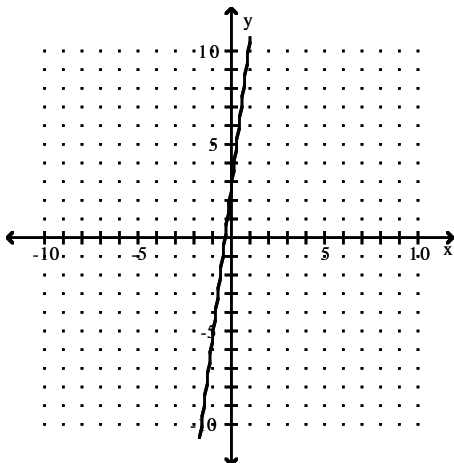14) $-9 < \dfrac{10 - 4x}{10} \leq 7$ 14) _____

Answer Key
Testname: M101PE14–16

1) x: 4; y: $-\dfrac{4}{5}$

2) x: $-\dfrac{3}{8}$; y: 3

3) $y = \dfrac{3}{2}x + \dfrac{1}{2}$

4) $y = \dfrac{8}{3}x + \dfrac{34}{3}$

5) $C(x) = 630 + 36x$

6) –2

7) {–16}

8) $\left\{ -\dfrac{5}{2} \right\}$

9) A

10) A

11) B

12) $[4, \infty)$

13) $(2, \infty)$

14) $[-15, 25)$