Exam 1 Chapter 4 Preparation 4.1 to 4.6
Winter 2010 V01

Name_____

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

Indicate in which quadrant the point lies.

1) (7, 13) 1) _____
A) IV B) II C) I D) III

2) (–20, –2) 2) _____
A) III B) I C) IV D) II

3) (2, –9) 3) _____
A) IV B) III C) I D) II

4) $\left(-\frac{3}{7}, \frac{2}{5}\right)$ 4) _____
A) II B) IV C) III D) I

5) $\left(-\frac{1}{2}, -\frac{2}{5}\right)$ 5) _____

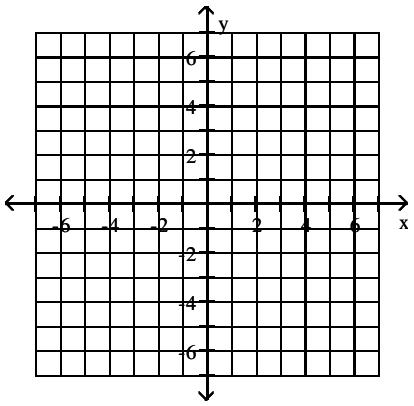
A) I B) II C) IV D) III

6) $\left(\frac{3}{7}, -\frac{1}{4}\right)$ 6) _____

A) I B) IV C) II D) III

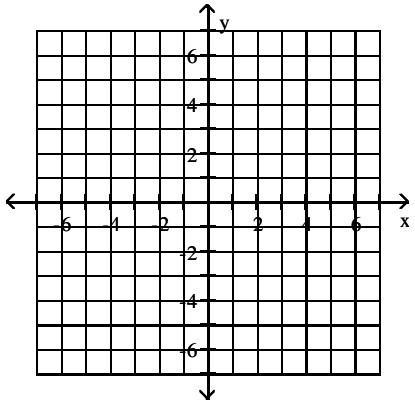
Plot the given point in a rectangular coordinate system.

7) (–3, 4) 7) _____



8) (1, –4)

8) _____



Determine whether the ordered pair is a solution of the given equation.

9) (3, 1)

$y = x - 2$

9) _____

10) (3, –2)

$y = x - 1$

10) _____

11) (6, –2)

$x - y = 8$

11) _____

12) (3, –4)
$x - y = 1$

12) _____

13) (–6, –1)
$4x + 2y = -26$

13) _____

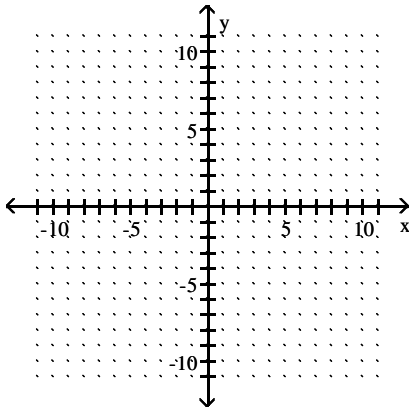
14) (–3, 5)
$3x + 4y = -29$

14) _____

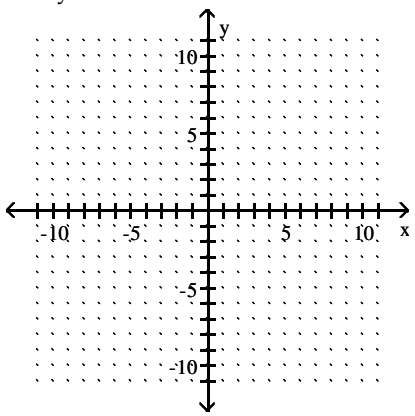
Write the sentence as a linear equation in two variables. Then graph the equation.

15) The y–variable is 3 less than the x–variable.

15) _____



16) The y–variable is 5 less than 9 times the x–variable. 16) _____



Find the x–intercept and the y–intercept of the graph of the equation. Do not graph the equation.

17) $x + y = 5$ 17) _____

18) $x + y = -8$ 18) _____

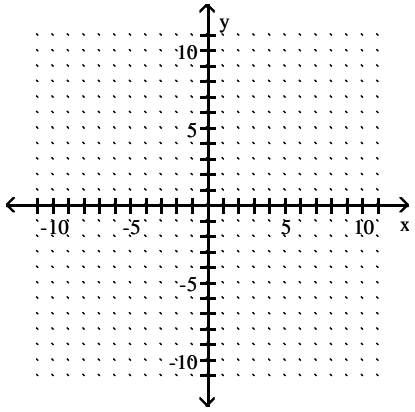
19) $2x + y = -6$ 19) _____

20) $5x + 4y = 20$ 20) _____

Graph the equation.

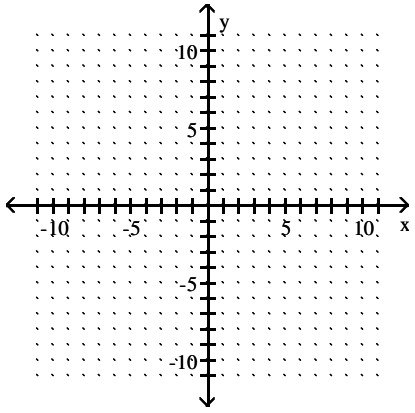
21) $y = 4$

21) _____

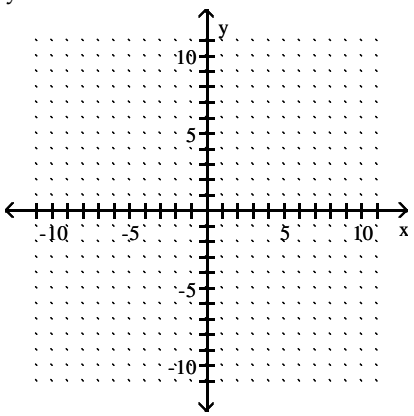


22) $x = 4$

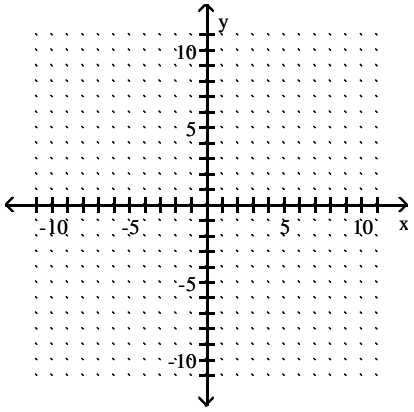
22) _____



23) $y + 3 = 0$ 23) _____



24) $11x = 55$ 24) _____



Determine whether the lines through each pair of points are parallel.

25) (–6, 0) and (–16, 14); (9, 6) and (4, 13) 25) _____

26) (–3, 10) and (–5, –10); (2, –4) and (3, –14) 26) _____

27) (9, 7) and (–11, 19); (–6, –2) and (–16, 4) 27) _____

Determine whether the lines through each pair of points are perpendicular.

28) (–2, –2) and (–20, 6); (9, –8) and (0, –4) 28) _____

29) (6, 4) and (–4, 16); (5, –6) and (11, –11) 29) _____

30) (–5, –5) and (7, 11); (17, –7) and (9, –1) 30) _____

Find the slope of the line.

31) $y = 3x$ 31) _____

32) $y = -4x - 2$ 32) _____

33) $y = 8$ 33) _____

34) $-4x + y = 9$ 34) _____

Find the y–intercept.

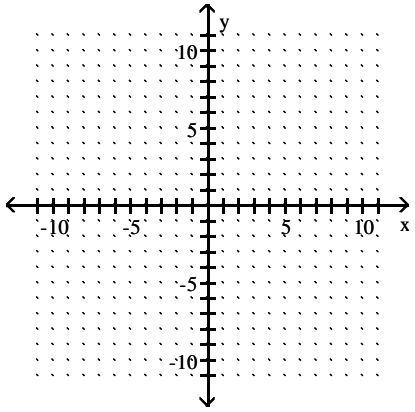
35) $y = -7x$ 35) _____

36) $y = -4x + 1$ 36) _____

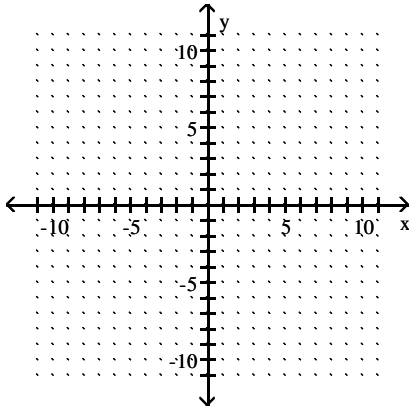
37) $-9x + y = 1$ 37) _____

Graph the linear equation using the slope and y–intercept.

38) $y = 5x + 6$ 38) _____



39) $y = -\frac{1}{2}x + 2$ 39) _____



Find the point–slope form of the equation of the line satisfying the given conditions and use this to write the slope–intercept form of the equation.

40) Slope = 5, passing through (5, 2) 40) _____

41) Slope = 3, passing through (–1, –8) 41) _____

42) Slope = $-\frac{5}{2}$, passing through (2, –1) 42) _____

Write an equation in slope–intercept form of the line satisfying the given conditions.

43) Parallel to the line y = –3x; containing the point (8, 8) 43) _____

44) Parallel to the line y = –3; containing the point (8, 4) 44) _____

45) Perpendicular to the line x – 3y = 3; containing the point (5, 2). 45) _____

46) Perpendicular to the line y = –4x – 3; containing the point (–3, –1). 46) _____

Determine if the ordered pair satisfies the inequality.

47) $x + y > -3$: $(-5, 3)$ 47) _____

48) $x - y \leq 6$: $(2, 1)$ 48) _____

49) $x - y \leq 8$: $(-1, -11)$ 49) _____

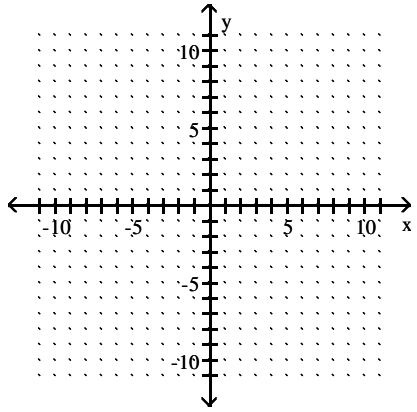
50) $2x + 3y \leq -3$: $(3, 3)$ 50) _____

51) $x + 2y > -6$: $(-6, 3)$ 51) _____

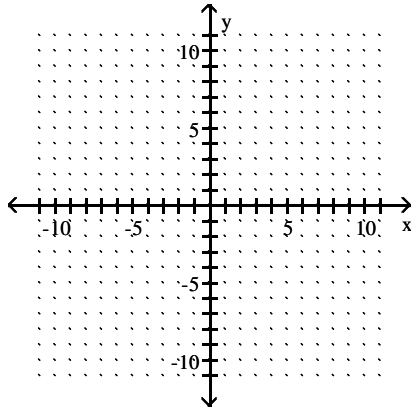
52) $x + 2y < -6$: $(3, -4)$ 52) _____

Graph the inequality.

53) $x - y > -6$ 53) _____

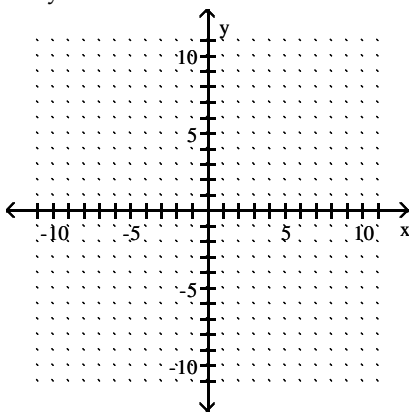


54) $x + y < -5$ 54) _____



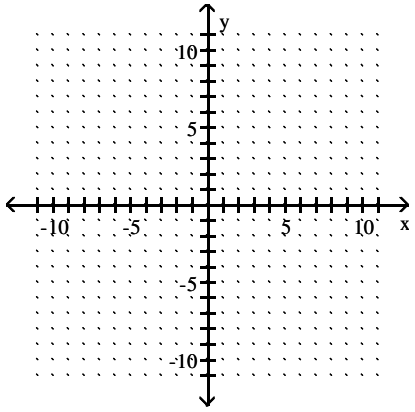
55) $x + y \leq 7$

55) _____



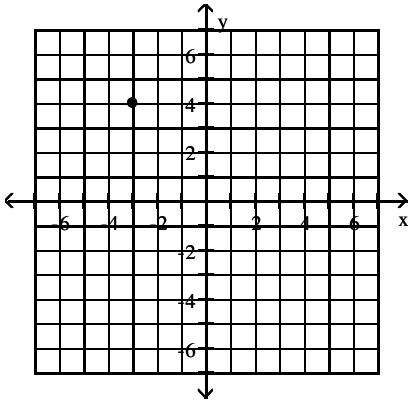
56) $5x + y \leq -1$

56) _____

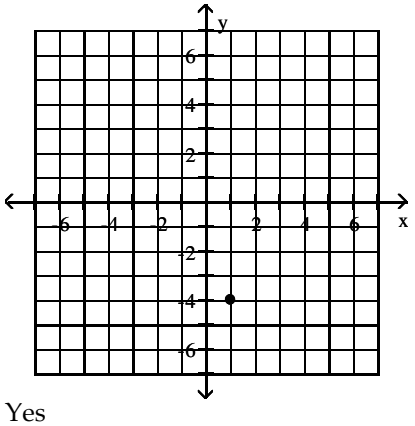


Answer Key
Testname: E02PREPCH04V01

1) C
2) A
3) A
4) A
5) D
6) B
7)

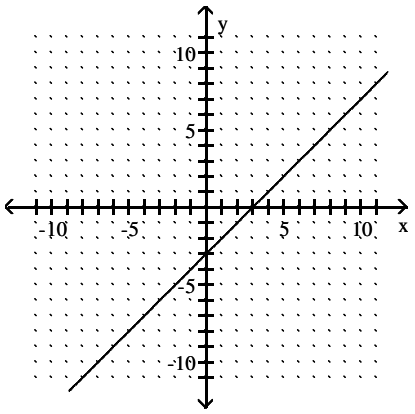


8)

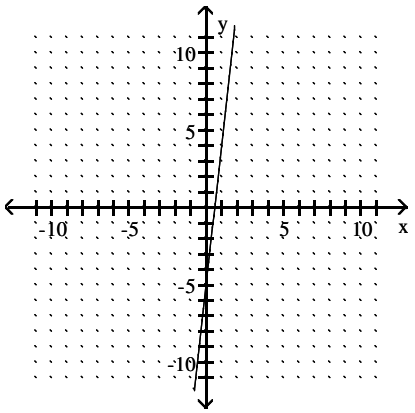


9) Yes
10) No
11) Yes
12) No
13) Yes
14) No

15) y = x – 3



16) y = 9x – 5



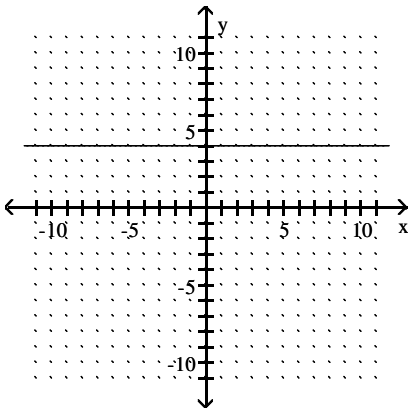
17) x–intercept = 5; y–intercept = 5

18) x–intercept = –8; y–intercept = –8

19) x–intercept = –3; y–intercept = –6

20) x–intercept = 4; y–intercept = 5

21)



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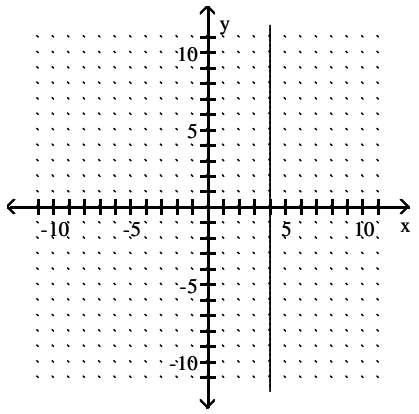

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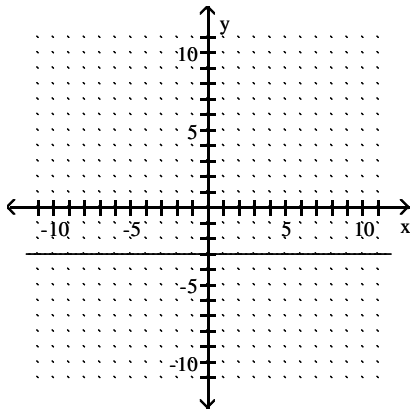

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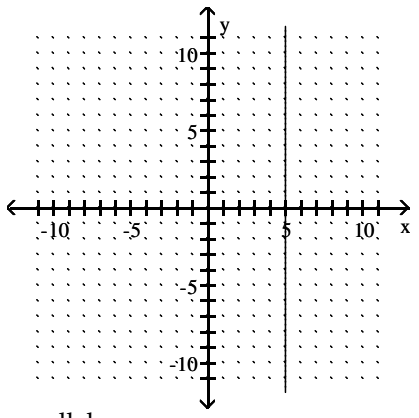
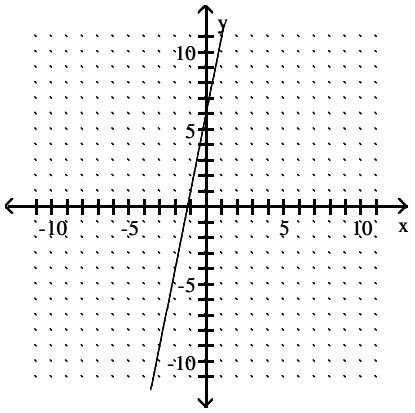


25) parallel
26) not parallel
27) parallel
28) not perpendicular
29) not perpendicular
30) perpendicular
31) 3
32) – 4
33) 0
34) 4
35) 0

36) 1
37) 1
38)



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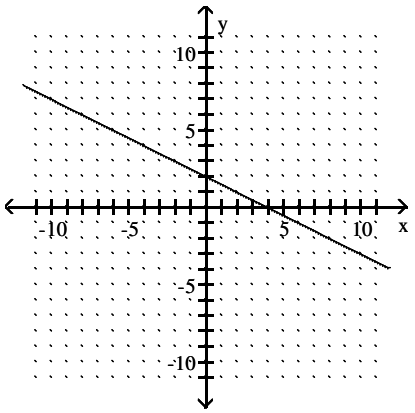
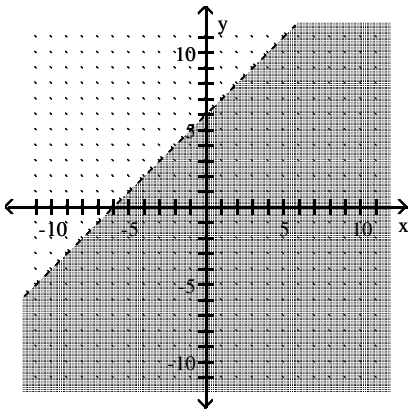


40) $y = 5x - 23$
41) $y = 3x - 5$
42) $y = -\frac{5}{2}x + 4$
43) $y = -3x + 32$
44) $y = 4$
45) $y = -3x + 17$
46) $y = \frac{1}{4}x - \frac{1}{4}$
47) Yes
48) Yes
49) No
50) No
51) Yes
52) No

53)



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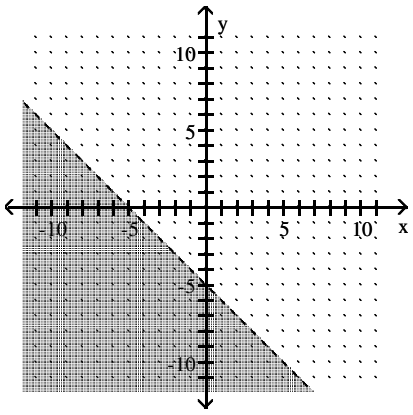

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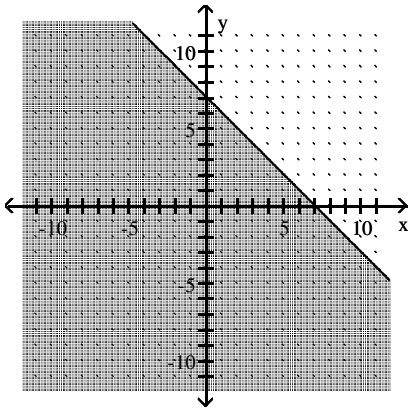

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