Exam 1 Chapter 4 Preparation 4.1 to 4.6
Winter 2010 V02

Name_____

Indicate in which quadrant the point lies.

1) (5, 11) 1) _____

2) (–6, –16) 2) _____

3) (16, –13) 3) _____

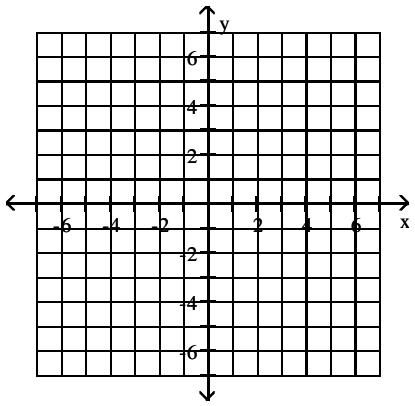
4) $\left(-\frac{5}{8}, \frac{7}{8}\right)$ 4) _____

5) $\left(-\frac{1}{3}, -\frac{7}{8}\right)$ 5) _____

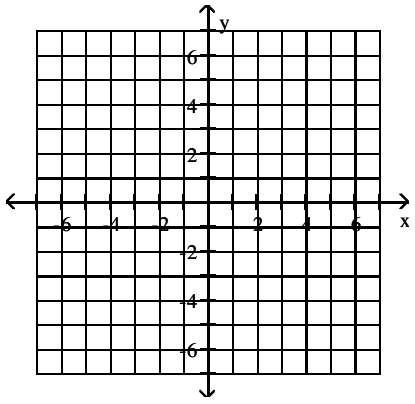
6) $\left(\frac{6}{7}, -\frac{1}{4}\right)$ 6) _____

Plot the given point in a rectangular coordinate system.

7) (–6, 5) 7) _____



8) (5, –2) 8) _____



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

9) (5, –1)
$y = x - 6$

9) _____

10) (–5, –6)
$y = x + 11$

10) _____

11) (5, 6)
$x - y = -1$

11) _____

12) (4, –5)
$x - y = 1$

12) _____

13) (–4, –5)
$2x + 4y = -28$

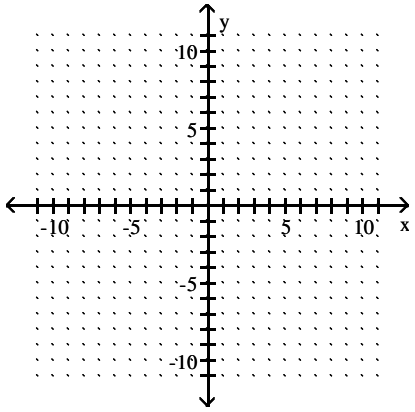
13) _____

14) (–1, –5) 14) _____

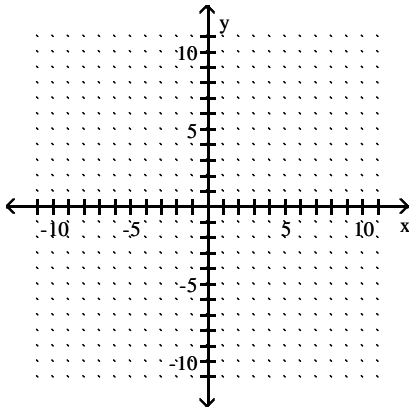
$2x + 3y = 13$

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

15) The y–variable is 7 less than the x–variable. 15) _____



16) The y–variable is 5 less than 7 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) $x + y = 4$ 17) _____

18) $x + y = -2$ 18) _____

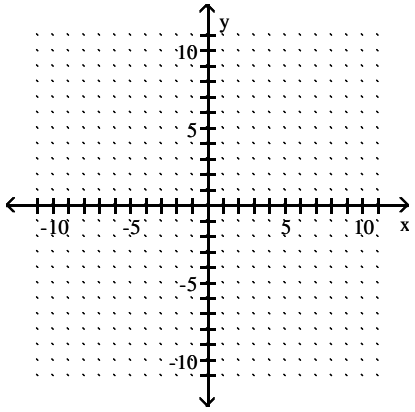
19) $3x + y = -6$ 19) _____

20) $2x + 5y = 10$ 20) _____

Graph the equation.

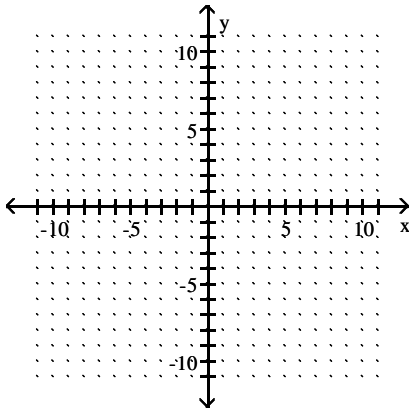
21) $y = -9$

21) _____

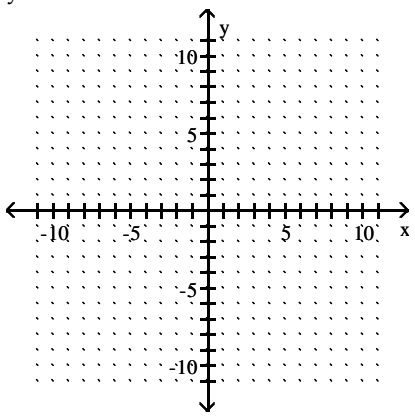


22) $x = 3$

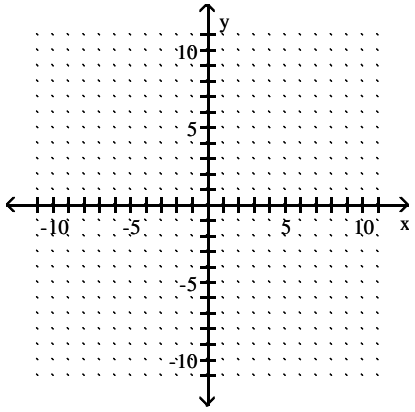
22) _____



23) $y + 2 = 0$ 23) _____



24) $20x = -60$ 24) _____



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

25) (–8, 0) and (10, –12); (–7, –6) and (2, –12) 25) _____

26) (2, –8) and (–2, –24); (3, 8) and (5, 0) 26) _____

27) (–2, 10) and (2, 16); (–5, 1) and (–3, 4) 27) _____

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

28) (2, –9) and (14, 9); (8, 1) and (14, 10) 28) _____

29) (8, –9) and (–4, –19); (1, 2) and (–4, –4) 29) _____

30) (8, 1) and (10, –7); (0, 5) and (4, 6) 30) _____

Find the slope of the line.

31) $y = 5x$ 31) _____

32) $y = 6x - 9$ 32) _____

33) $y = 3$ 33) _____

34) $4x + y = -8$ 34) _____

Find the y–intercept.

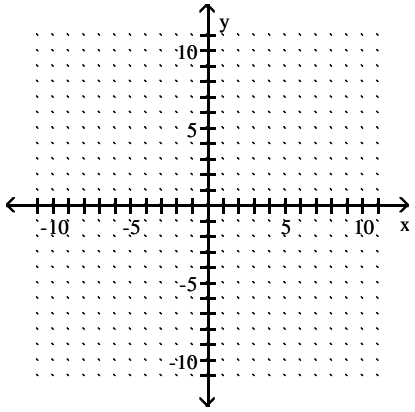
35) $y = -3x$ 35) _____

36) $y = -5x - 6$ 36) _____

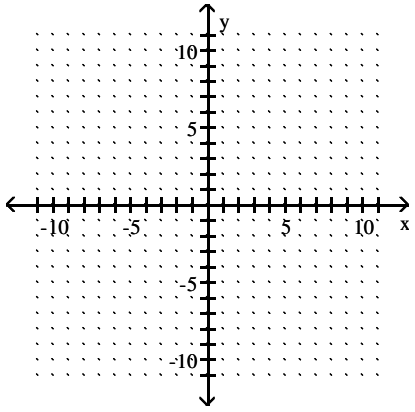
37) $-2x + y = 4$ 37) _____

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

38) $y = -4x + 2$ 38) _____



39) $y = -\frac{1}{2}x + 5$ 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 = 2, passing through (3, 2) 40) _____

41) Slope = 2, passing through (–9, 9) 41) _____

42) Slope = $-\frac{3}{2}$, passing through (2, –6) 42) _____

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

43) Parallel to the line y = 2x; containing the point (2, 6) 43) _____

44) Parallel to the line y = 9; containing the point (4, 2) 44) _____

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

46) Perpendicular to the line y = –3x – 4; containing the point (2, –1). 46) _____

Determine if the ordered pair satisfies the inequality.

47) $x + y > 7$: (–2, 10) 47) _____

48) $x - y \leq 7$: (–2, 1) 48) _____

49) $x - y \leq -3$: (–5, –5) 49) _____

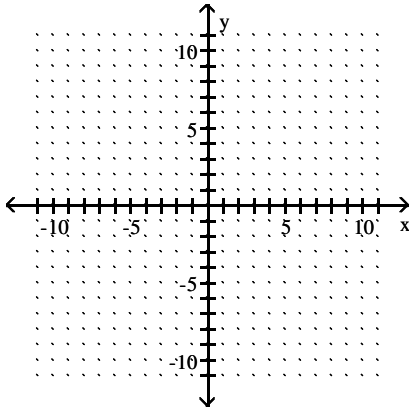
50) $2x + 3y \leq 3$: (6, 4) 50) _____

51) $x + 2y > -6$: (–3, 1) 51) _____

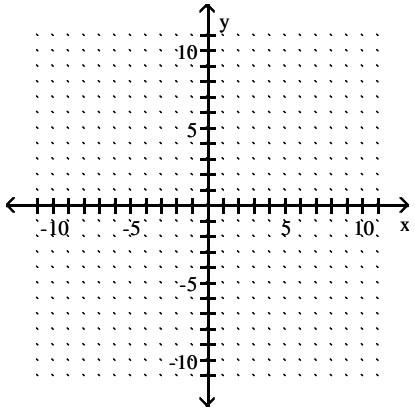
52) $x + 2y < -6$: (6, –5) 52) _____

Graph the inequality.

53) $x - y > -5$ 53) _____

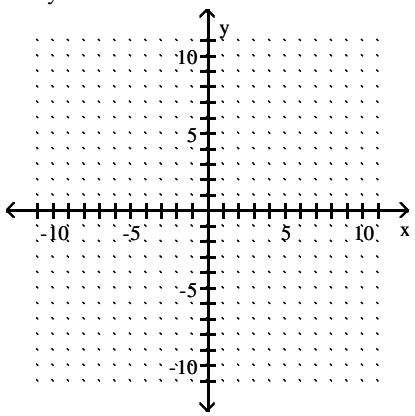


54) $x + y < -6$ 54) _____



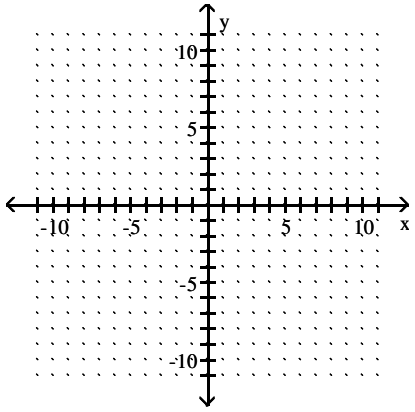
55) $x + y \leq 2$

55) _____



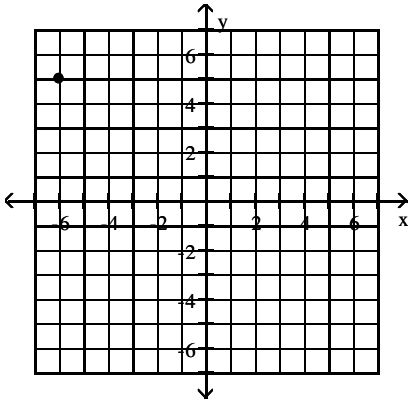
56) $2x + y \leq 1$

56) _____



Answer Key
Testname: E02PREPCH04V02

1) I
2) III
3) IV
4) II
5) III
6) IV
7)



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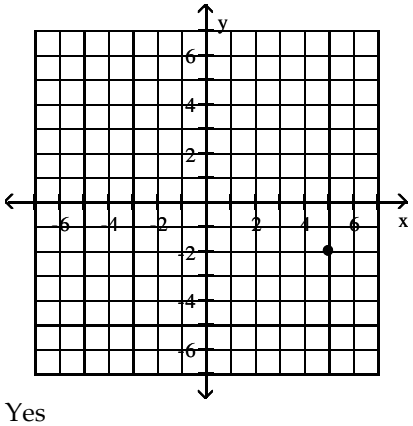
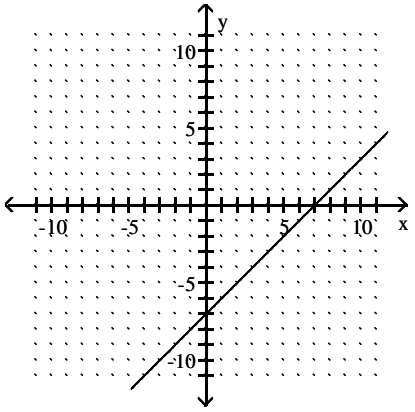
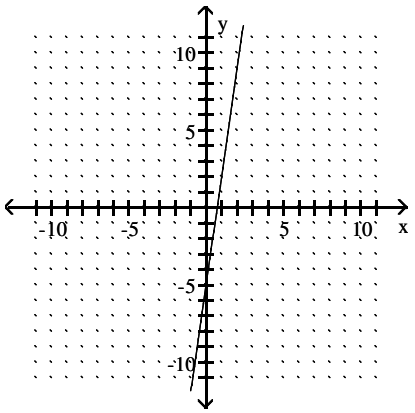


9) Yes
10) No
11) Yes
12) No
13) Yes
14) No

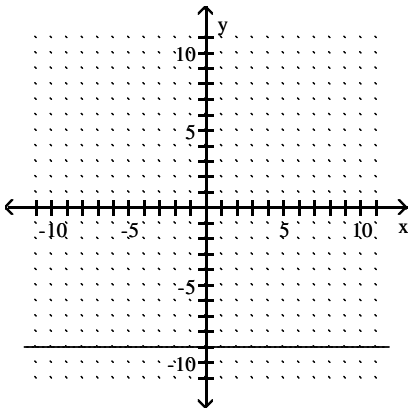
15) y = x – 7



16) y = 7x – 5



17) x–intercept = 4; y–intercept = 4
18) x–intercept = –2; y–intercept = –2
19) x–intercept = –2; y–intercept = –6
20) x–intercept = 5; y–intercept = 2
21)



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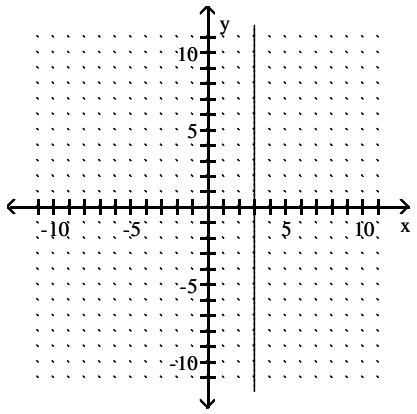

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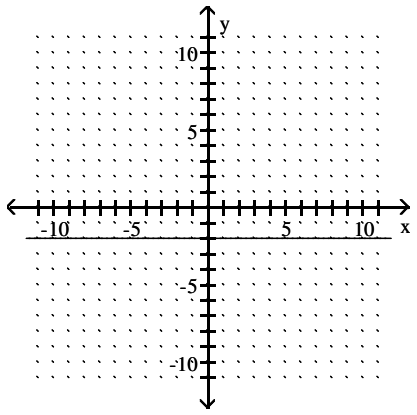

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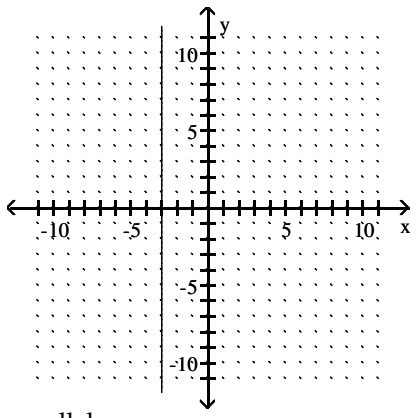
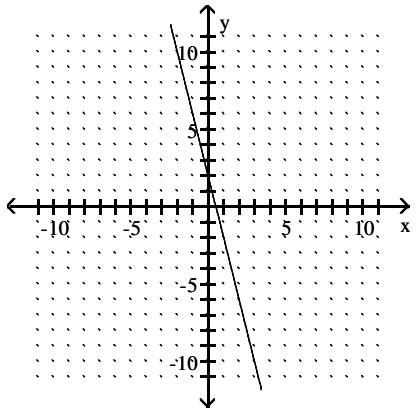


25) parallel
26) not parallel
27) parallel
28) not perpendicular
29) not perpendicular
30) perpendicular
31) 5
32) 6
33) 0
34) – 4
35) 0

36) –6
37) 4
38)



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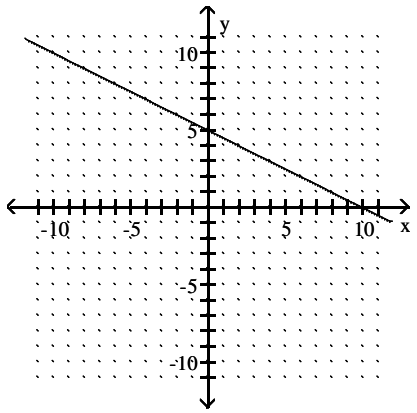
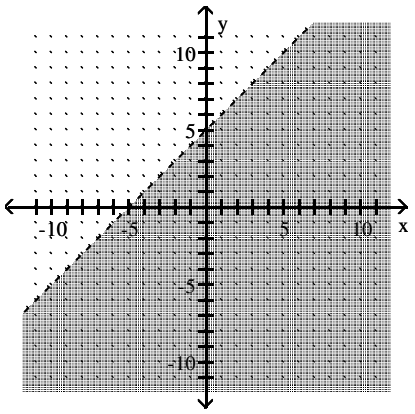


40) $y = 2x - 4$
41) $y = 2x + 27$
42) $y = -\frac{3}{2}x - 3$
43) $y = 2x + 2$
44) $y = 2$
45) $y = -5x - 15$
46) $y = \frac{1}{3}x - \frac{5}{3}$
47) Yes
48) Yes
49) No
50) No
51) Yes
52) No

53)



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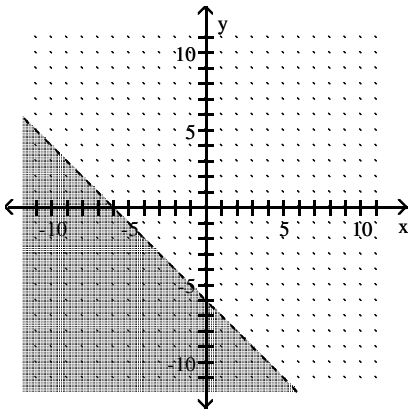

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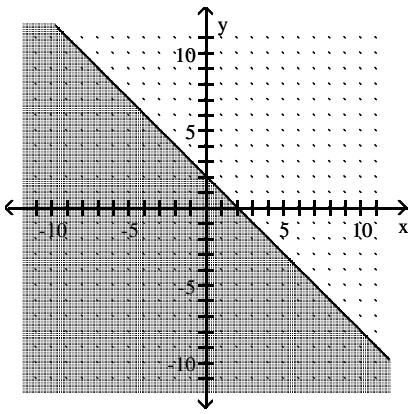

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