

Find an equivalent expression by factoring.

1) $4x + 14$

1) _____

2) $5 + 20a + 30b$

2) _____

3) $-4x - 4y$

3) _____

List the terms of the expression.

4) $-19a + 8b - 5$

4) _____

5) $5x^2 - 13x + 14$

5) _____

Simplify to form an equivalent expression by combining like terms.

6) $6x + 8x^2 - x + 7x^2$

6) _____

7) $-9x^2 + 8x^3 + 5x - x^2 + 9x - x^3$

7) _____

Simplify by using the distributive law and combining like terms.

8) $4(3x - 3) - 5(x - 2)$

8) _____

9) $2(2t - 3) + 3(5t + 4) + 3t$

9) _____

Determine whether the two expressions appear to be equivalent by evaluating both expressions for several different values of x.

10) $5(m - 5n + 7); 5m - 25n + 7$

10) _____

A) Equivalent

B) Not equivalent

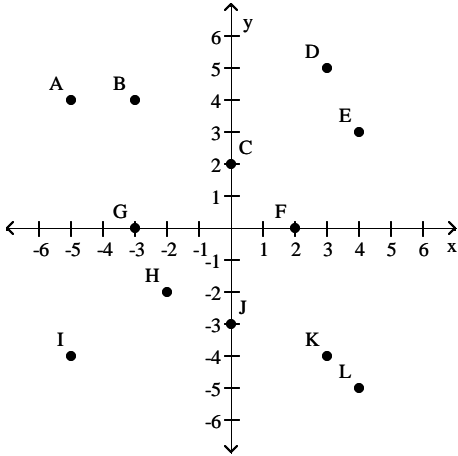
11) $x - (6x + 7); -5x - 7$

11) _____

A) Not equivalent

B) Equivalent

Give the coordinates of the specified point.



12) D

12) _____

13) C

13) _____

14) G

14) _____

15) B

15) _____

16) L

16) _____

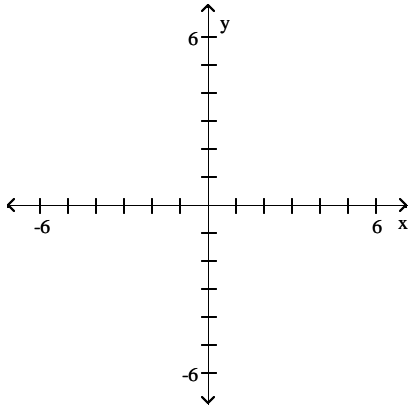
17) I

17) _____

Plot the points given by the pairs.

18) A(-4, -3), B(-5, 3)

18) _____



Name the quadrant in which the point is located.

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

19) _____

20) (16, -7)

20) _____

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

21) _____

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

22) (2, 4); $2x - 3y = 16$

22) _____

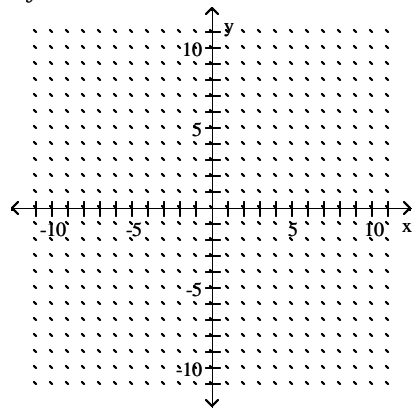
23) (1, 2); $2w^2 - z = 0$

23) _____

Use a graphing calculator to graph the equation.

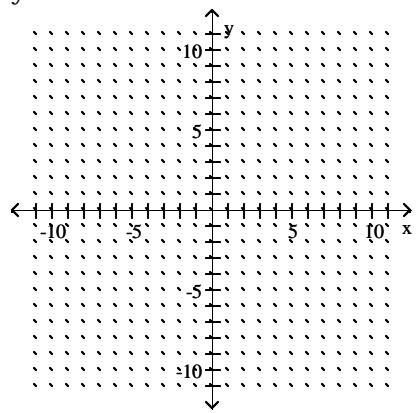
24) $4y = x + 2$

24) _____



25) $y = -x^2 + 5$

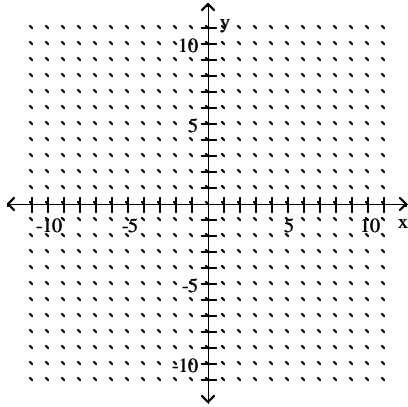
25) _____



Graph.

26) $y - 7 = x$

26) _____



Determine whether the equation is linear or nonlinear.

27) $y = x^2 - 5$

27) _____

A) Linear

B) Nonlinear

28) $y = -6 - \frac{2}{3}x$

28) _____

A) Linear

B) Nonlinear

Using a graphing calculator, create a table of solutions for integer values of x beginning at x = -2. Then graph the equation.

29) $y = -2x^2$

29) _____

30) $y = -\frac{5}{2}x + 1$

30) _____

Use a graphing calculator to determine which window best shows the shape of the graph and where it crosses the x- and y-axes.

31) $y = x - 18$

31) _____

A) $[-20, 20, -20, 20]$, Xscl = 3, Yscl = 3

B) $[-10, 10, -10, 10]$, Xscl = 1, Yscl = 1

32) $y = 3x^2 - 7$

32) _____

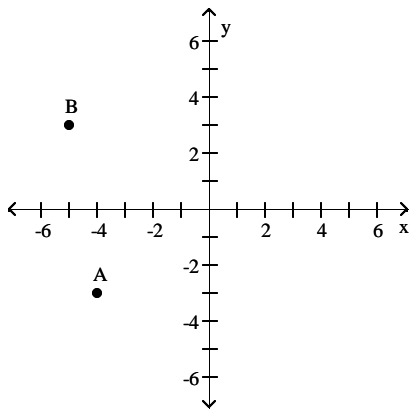
A) $[-6, 6, -6, 6]$, Xscl = 1, Yscl = 1

B) $[-10, 10, -10, 10]$, Xscl = 1, Yscl = 1

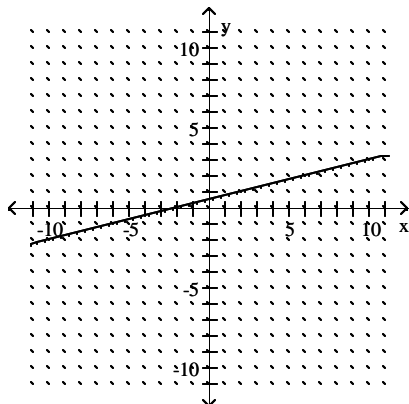
Answer Key

Testname: SECTIONS1-3-5

- 1) $2(2x + 7)$
- 2) $5(1 + 4a + 6b)$
- 3) $-4(x + y)$
- 4) $-19a, 8b, -5$
- 5) $5x^2, -13x, 14$
- 6) $5x + 15x^2$
- 7) $7x^3 - 10x^2 + 14x$
- 8) $7x - 2$
- 9) $22t + 6$
- 10) B
- 11) B
- 12) (3, 5)
- 13) (0, 2)
- 14) (-3, 0)
- 15) (-3, 4)
- 16) (4, -5)
- 17) (-5, -4)
- 18)



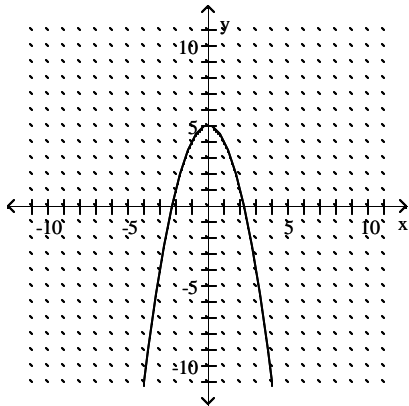
- 19) Quadrant II
- 20) Quadrant IV
- 21) Quadrant IV
- 22) No
- 23) Yes
- 24)



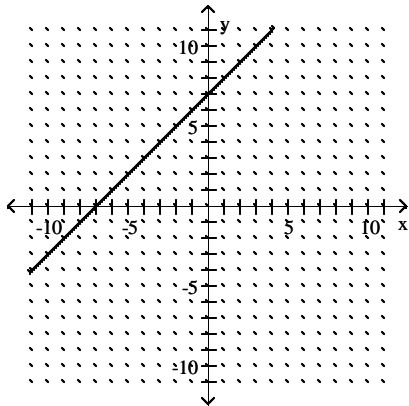
Answer Key

Testname: SECTIONS1-3-5

25)



26)



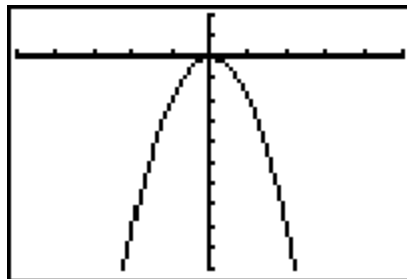
27) B

28) A

29)

X	Y1	
-2	-8	
-1	-2	
0	0	
1	-2	
2	-8	
3	-18	
4	-32	

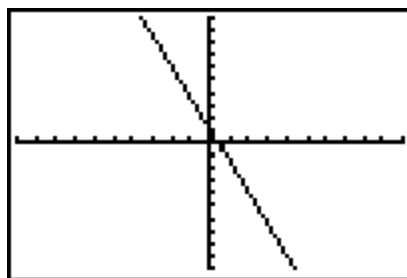
X = -2



30)

X	Y1	
-2	6	
-1	3.5	
0	1	
1	-1.5	
2	-4	
3	-6.5	
4	-9	

X = -2



31) A

32) B