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

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

1) $-2y + 3x = -15$; (5, 0)

1) _____

A) no

B) yes

Objective: (10.1) Determine whether an ordered pair is a solution of an equation in two variables.

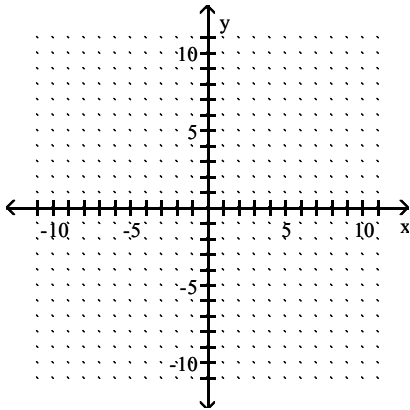
m50-20

Find three ordered pair solutions by completing the table. Then use the ordered pairs to graph the equation.

2) $y = 2x + 4$

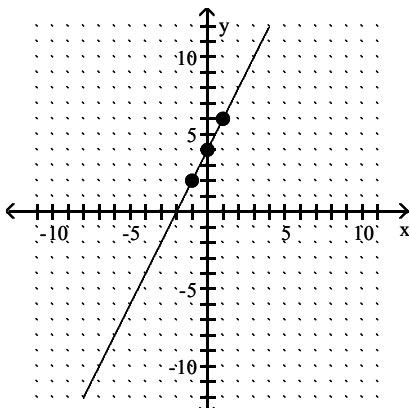
2) _____

x	y
0	
1	
-1	



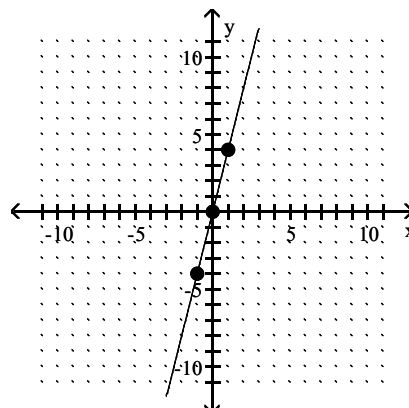
A)

x	y
0	4
1	6
-1	2



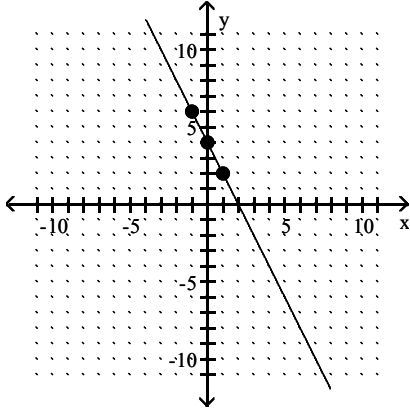
B)

x	y
0	0
1	4
-1	-4



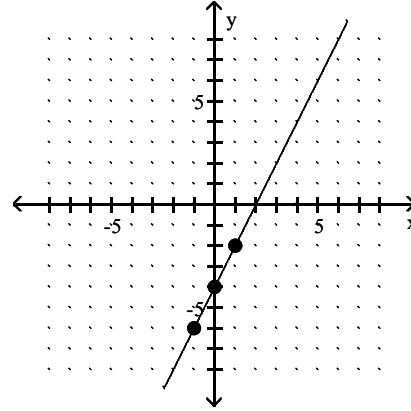
C)

x	y
0	4
1	2
-1	6



D)

x	y
0	-4
1	-2
-1	-6

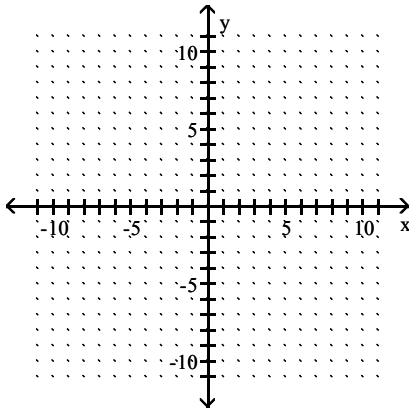


Objective: (10.2) Graph a linear equation by finding and plotting ordered pair solutions.
m50-21

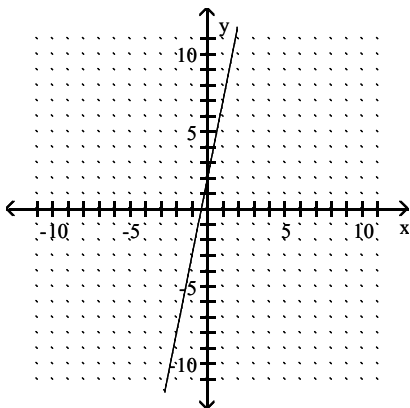
Graph the linear equation.

3) $5y - 25x = 10$

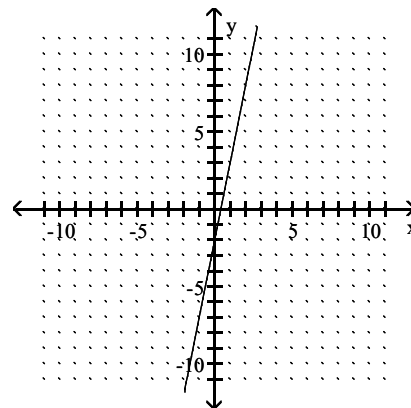
3) _____



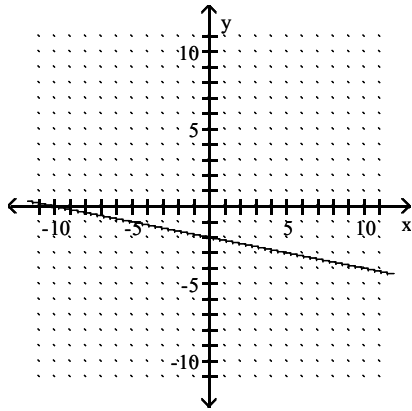
A)



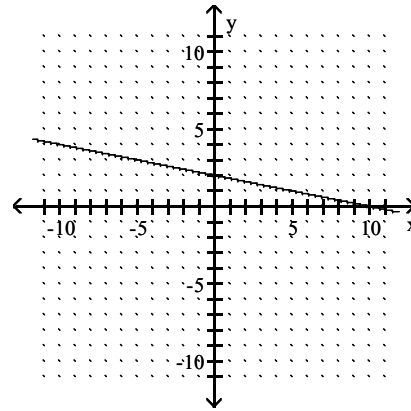
B)



C)



D)



Objective: (10.2) Graph a linear equation by finding and plotting ordered pair solutions.

m50-22

Find the slope of the line that passes through the given points.

4) (8, 5) and (6, 9)

A) -2

B) $-\frac{1}{2}$

C) 1

D) 2

4) _____

Objective: (10.4) Find the slope of a line given two points of the line.

m50-23

Find an equation of the line described. Write the equation in slope-intercept form if possible.

5) Slope 2, through (5, 2)

A) $y = 2x - 8$

B) $y = 2x + 8$

C) $x = 2y - 8$

D) $x = 2y + 8$

5) _____

Objective: (10.5) Use the point-slope form to find an equation of a line given its slope and a point of the line.

m50-24

Evaluate the function.

6) Find $f(4)$ when $f(x) = x^2 + 4x - 3$.

A) 29

B) 35

C) 3

D) -3

6) _____

Objective: (10.6) Use function notation.

m50-25

Solve the system of equations by the addition method.

$$7) \begin{cases} -2x + 3y = 2 \\ -3x + 5y = 2 \end{cases}$$

A) (-4, -2)

B) (-2, -4)

C) infinite number of solutions

D) no solution

7) _____

Objective: (11.3) Use the addition method to solve a system of linear equations.

m50-26

$$8) \begin{cases} x + y = 7 \\ x + y = 4 \end{cases}$$

A) no solution

B) (0, 0)

C) (7, 4)

D) (0, 11)

8) _____

Objective: (11.3) Use the addition method to solve a system of linear equations.

m50-27

$$9) \begin{cases} -2x + 2y = -5 \\ 6x - 6y = 15 \end{cases}$$

A) infinite number of solutions

B) (0, 0)

C) (-2, 2)

D) no solution

9) _____

Objective: (11.3) Use the addition method to solve a system of linear equations.

m50-28

Perform the indicated operation.

10) $(14x + 5) - (-13x^2 - 7x + 5)$

A) $13x^2 + 21x$

B) $13x^2 + 21x - 10$

C) $-13x^2 + 7x + 10$

D) $13x^2 - 21x$

10) _____

Objective: (12.2) Add and subtract polynomials.

m50-29

Multiply.

11) $6x^2(-2x^2 + 2x + 6)$

A) $-12x^4 + 12x^3 + 36x^2$

B) $-12x^4 + 12x^2 + 36$

C) $4x^4 + 8x + 12$

D) $-12x^4 + 12x + 36$

11) _____

Objective: (12.3) Use the distributive property to multiply polynomials.

m50-30

12) $(a + 8)(a + 1)$

A) $2a + 8$

B) $a^2 + 9a + 9$

C) $a^2 + 9a + 8$

D) $2a^2 + 8$

12) _____

Objective: (12.3) Use the distributive property to multiply polynomials.

m50-31

13) $(b - 5)(b^2 + 5b + 3)$

A) $b^3 + 28b + 15$

B) $b^3 - 22b - 15$

C) $b^3 - 10b^2 - 22b - 15$

D) $b^3 + 10b^2 + 22b + 15$

13) _____

Objective: (12.3) Use the distributive property to multiply polynomials.

m50-32

Multiply vertically.

14) $(6x - 1)(x^2 - 4x + 1)$

A) $6x^3 - 23x^2 + 2x - 1$

B) $6x^3 - 25x^2 + 10x - 1$

C) $6x^3 - 24x^2 + 6x + 1$

D) $6x^3 + 25x^2 - 10x + 1$

14) _____

Objective: (12.3) Multiply polynomials vertically.

m50-33

Multiply.

15) $(3a - 7)^2$

A) $9a^2 - 42a + 49$

B) $9a^2 + 49$

C) $3a^2 - 42a + 49$

D) $3a^2 + 49$

15) _____

Objective: (12.4) Square a binomial.

m50-34

16) $(x + 11)(x - 11)$

A) $x^2 - 121$

B) $x^2 - 22$

C) $x^2 - 22x - 121$

D) $x^2 + 22x - 121$

16) _____

Objective: (12.4) Multiply the sum and difference of two terms.

m50-35

Simplify the expression. Write the result using positive exponents only.

17) $\frac{2^{-7}x^{-5}y^3}{2^{-4}x^{-8}y^6}$

A) $\frac{x^3}{8y^3}$

B) $\frac{1}{8x^8y^3}$

C) $\frac{3x^3}{y^3}$

D) $\frac{8}{x^3y^3}$

17) _____

Objective: (12.5) Use all the rules and definitions for exponents to simplify exponential expressions.

m50-36

Find the quotient using long division.

18) $\frac{5m^2 + 5m - 10}{m + 2}$

18) _____

A) $5m - 5$

B) $5m + 5$

C) $m - 5$

D) $5m - 5 + \frac{7}{m - 5}$

Objective: (12.6) Use long division to divide a polynomial by another polynomial.
m50-37

19) $\frac{x^2 + 9x + 6}{x + 2}$

19) _____

A) $x + 7 - \frac{8}{x + 2}$

B) $x + 7 + \frac{8}{x + 2}$

C) $\frac{x + 7}{x + 2}$

D) $x + 8$

Objective: (12.6) Use long division to divide a polynomial by another polynomial.
m50-38

Factor out the GCF from the polynomial.

20) $20x^4y + 36xy^3$

20) _____

A) $4x(5x^3y + 9y^3)$

B) $4y(5x^4 + 9xy^2)$

C) $4xy(5x^3 + 9y^2)$

D) $xy(20x^3 + 36y^2)$

Objective: (13.1) Factor out the greatest common factor from a polynomial.
m50-39

Factor the four-term polynomial by grouping.

21) $3xy - 9x + 7y - 21$

21) _____

A) $(3x + 7)(y - 3)$

B) $(3x - 3)(y + 7)$

C) $(3x + 7y)(y - 3)$

D) $(3x + y)(7y - 3)$

Objective: (13.1) Factor a polynomial by grouping.
m50-40

Factor the trinomial completely. If the polynomial cannot be factored, write "prime."

22) $x^2 - x - 42$

22) _____

A) $(x + 7)(x - 6)$

B) prime

C) $(x + 6)(x - 7)$

D) $(x + 1)(x - 42)$

Objective: (13.2) Factor trinomials of the form $x^2 + bx + c$.
m50-41

23) $u^2 - 3uv - 28v^2$

23) _____

A) $(u + 4v)(u - 7v)$

B) $(u - 4v)(u + v)$

C) $(u - 4v)(u + 7v)$

D) prime

Objective: (13.2) Factor trinomials of the form $x^2 + bx + c$.
m50-42

24) $x^2 + 3xy - 18y^2$

24) _____

A) $(x - 6y)(x + 3y)$

B) $(x + 6y)(x - 3y)$

C) $(x - 6y)(x + y)$

D) $(x - y)(x + 3y)$

Objective: (13.2) Factor trinomials of the form $x^2 + bx + c$.
m50-43

Factor the binomial completely.

25) $z^2 - 121$

25) _____

A) prime

B) $(z - 11)^2$

C) $(z + 11)(z - 11)$

D) $(z + 11)^2$

Objective: (13.5) Factor the difference of two squares.
m50-44

Answer Key

Testname: AAFM041024350MT2

- 1) A
- 2) A
- 3) A
- 4) A
- 5) A
- 6) A
- 7) A
- 8) A
- 9) A
- 10) A
- 11) A
- 12) C
- 13) B
- 14) B
- 15) A
- 16) A
- 17) A
- 18) A
- 19) A
- 20) C
- 21) A
- 22) C
- 23) A
- 24) B
- 25) C