

Name _____

math0410 Exam #2 04041700aafm041024350m

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SHORT ANSWER. Write the word or phrase that best completes each 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) _____

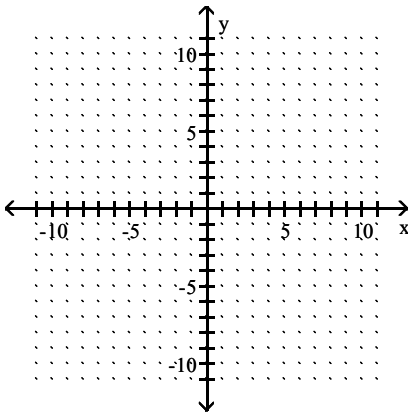
m50-20

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

2) $y = 2x + 4$

2) _____

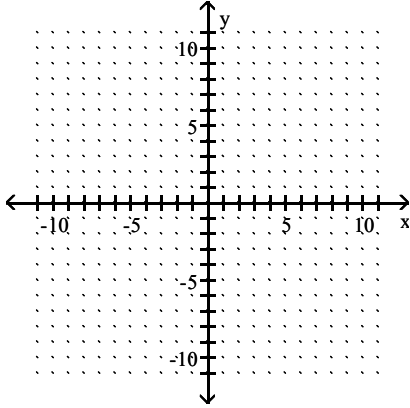
x	y
0	
1	
-1	



m50-21

Graph the linear equation.

3) $5y - 25x = 10$



3) _____

m50-22

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

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

4) _____

m50-23

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

5) Slope 2, through (5, 2)

5) _____

m50-24

Evaluate the function.

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

6) _____

m50-25

Solve the system of equations by the addition method.

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

7) _____

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

8) _____

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

9) _____

m50-28

Perform the indicated operation.

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

10) _____

m50-29

Multiply.

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

11) _____

m50-30

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

12) _____

m50-31

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

13) _____

m50-32

Multiply vertically.

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

14) _____

m50-33

Multiply.

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

15) _____

m50-34

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

16) _____

m50-35

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

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

17) _____

m50-36

Find the quotient using long division.

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

18) _____

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

19) _____

Factor out the GCF from the polynomial.

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

20) _____

Factor the four-term polynomial by grouping.

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

21) _____

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

$$22) x^2 - x - 42$$

22) _____

m50-41

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

23) _____

m50-42
24) $x^2 + 3xy - 18y^2$

24) _____

m50-43
Factor the binomial completely.

25) $z^2 - 121$

25) _____

m50-44

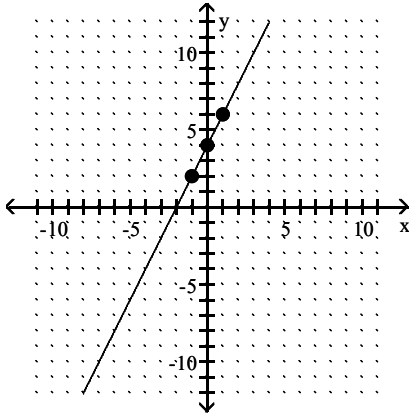
Answer Key

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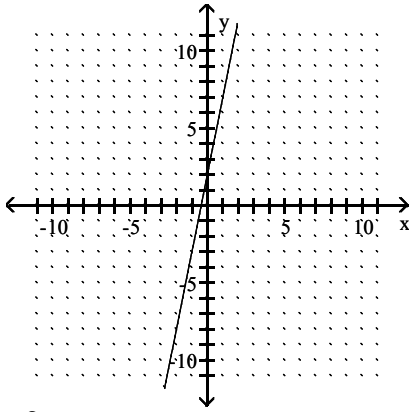
1) no

2)

x	y
0	4
1	6
-1	2



3)



4) - 2

5) $y = 2x - 8$

6) 29

7) (- 4, - 2)

8) no solution

9) infinite number of solutions

10) $13x^2 + 21x$

11) $-12x^4 + 12x^3 + 36x^2$

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

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

14) $6x^3 - 25x^2 + 10x - 1$

15) $9a^2 - 42a + 49$

16) $x^2 - 121$

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

18) $5m - 5$

Answer Key

Testname: AAFM041024350MT2AW

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

20) $4xy(5x^3 + 9y^2)$

21) $(3x + 7)(y - 3)$

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

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

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

25) $(z + 11)(z - 11)$