

Name _____

math0410 Exam #4 04041700aafm041024350m

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SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Solve the equation.

1) $x + 3 = 7$

1) _____

2) $9x + 4x = 78$

2) _____

3) $4(8x - 4) = 33x$

3) _____

4) $5x + 4 = 49$

4) _____

5) $9n - 4 = 59$

5) _____

6) $-14 = 8x - 6$

6) _____

7) $7(8x - 4) = 60x$

7) _____

8) $2(5x - 2) = 8x$

8) _____

m50-5
9) $5(y - 4) = 7y - 20$

9) _____

10) $1.1x + 4.3 = 0.7x + 1.14$

10) _____

m50-8
11) $\frac{5}{6}x + \frac{4}{3} = \frac{2}{3}x$

11) _____

m50-15

12) $9x + 5 - 9x - 5 = 6x - 6x - 3$

12) _____

m50-16
13) $2(x + 5) = (2x + 10)$

13) _____

m50-17
Solve the equation for the indicated variable.

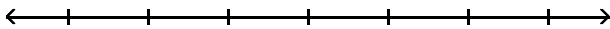
14) $A = P + PRT$ for T

14) _____

m50-18
Solve the inequality. Graph the solution set and write it in interval notation.

15) $21x + 9 > 3(6x + 4)$

15) _____



m50-19
Determine whether the ordered pair is a solution of the given linear equation.

16) $-2y + 3x = -15$; (5, 0)

16) _____

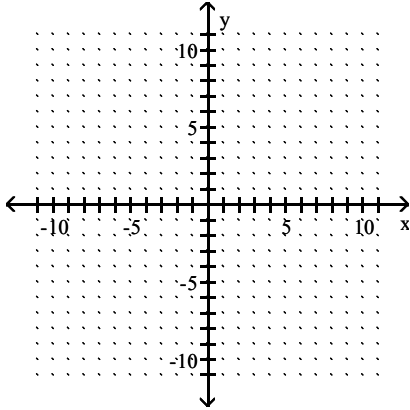
m50-20

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

17) $y = 2x + 4$

17) _____

x	y
0	
1	
-1	

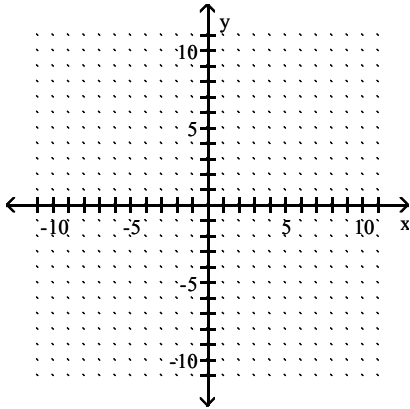


m50-21

Graph the linear equation.

18) $5y - 25x = 10$

18) _____



m50-22

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

19) (8, 5) and (6, 9)

19) _____

m50-23

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

20) Slope 2, through (5, 2)

20) _____

m50-24

Evaluate the function.

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

21) _____

m50-25

Solve the system of equations by the addition method.

$$22) \begin{cases} -2x + 3y = 2 \\ -3x + 5y = 2 \end{cases}$$

22) _____

m50-26

$$23) \begin{cases} x + y = 7 \\ x + y = 4 \end{cases}$$

23) _____

m50-27

$$24) \begin{cases} -2x + 2y = -5 \\ 6x - 6y = 15 \end{cases}$$

24) _____

m50-28

Multiply vertically.

$$25) (6x - 1)(x^2 - 4x + 1)$$

25) _____

m50-33

Multiply.

$$26) (3a - 7)^2$$

26) _____

m50-34

$$27) (x + 11)(x - 11)$$

27) _____

m50-35

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

$$28) \frac{2^{-7}x^{-5}y^3}{2^{-4}x^{-8}y^6}$$

28) _____

m50-36

Find the quotient using long division.

$$29) \frac{x^2 + 9x + 6}{x + 2}$$

29) _____

m50-38

Factor out the GCF from the polynomial.

$$30) 20x^4y + 36xy^3$$

30) _____

m50-39

Factor the four-term polynomial by grouping.

$$31) 3xy - 9x + 7y - 21$$

31) _____

m50-40

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

$$32) x^2 - x - 42$$

32) _____

m50-41

Factor the binomial completely.

$$33) z^2 - 121$$

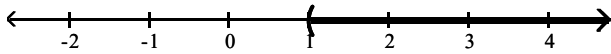
33) _____

m50-44

Answer Key

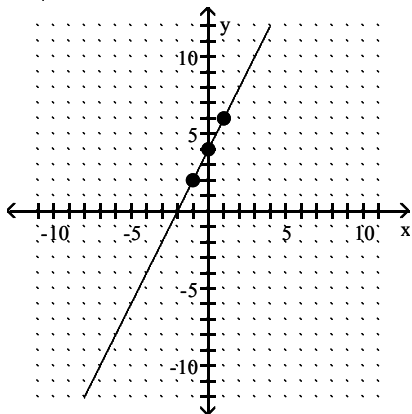
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- 1) 4
- 2) 6
- 3) -16
- 4) 9
- 5) 7
- 6) -1
- 7) -7
- 8) 2
- 9) 0
- 10) -7.9
- 11) -8
- 12) no solution
- 13) all real numbers
- 14) $T = \frac{A - P}{PR}$
- 15) $(1, \infty)$

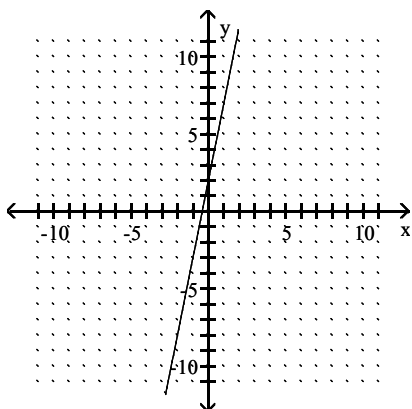


- 16) no
- 17)

x	y
0	4
1	6
-1	2



- 18)



Answer Key

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19) -2

20) $y = 2x - 8$

21) 29

22) $(-4, -2)$

23) no solution

24) infinite number of solutions

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

26) $9a^2 - 42a + 49$

27) $x^2 - 121$

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

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

30) $4xy(5x^3 + 9y^2)$

31) $(3x + 7)(y - 3)$

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

33) $(z + 11)(z - 11)$