Exam #1

Name_____

math0410 Exam #1   04041700aafm041024350m

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

Simplify.

1) $\dfrac{193 + 7}{3^2 - 4}$

     A) 40   B) 100   C) 60   D) 38

1) _____

Objective: (1.7) Use Order of Operations
m50–1

Solve the equation.

2) $f + 1 = -2$

     A) –3   B) 3   C) –1   D) 1

2) _____

Objective: (2.6) Use the Addition Property of Equality to Solve Equations
m50–2

Simplify the expression.

3) $2(4x + 2) + 3(x + 4)$

     A) 11x + 16   B) 11x + 6   C) 14x + 16   D) 24x

3) _____

Objective: (3.1) Simplify Expressions by Multiplying and Then Combining Like Terms
m50–3

Solve the equation.

4) $5x + 4 = 49$

     A) 9   B) 40   C) 44   D) 5

4) _____

Objective: (3.2) Use Both Properties to Solve Equations
m50–4

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

     A) 2   B) –2   C) –1   D) 1

5) _____

Objective: (3.2) Use Both Properties to Solve Equations
m50–5

6) $5x - 6 = 2x - 30$

     A) –8   B) 8   C) –10   D) 10

6) _____

Objective: (3.3) Solve Linear Equations Using the Addition and Multiplication Properties
m50–6

Solve.

7) $\dfrac{x}{5} = \dfrac{x}{6} + \dfrac{2}{5}$

     A) 12   B) $-\dfrac{2}{5}$ C) 0   D) $\dfrac{1}{12}$

7) _____

Objective: (4.8) Solve Equations Containing Fractions
m50–7

Solve the equation.

8) $1.1x + 4.3 = 0.7x + 1.14$ 8) _____

    A) –7.9   B) –7.8   C) 0.127   D) –7.11

Find the median. If necessary, round to one decimal place.

9) 4, 6, 25, 23, 43, 47   9) _____

    A) 24   B) 23   C) 21.5   D) 25

Translate to an equation and solve.

10) 19 is 4% of what number?   10) _____

    A) 475   B) 4750   C) 47.5   D) 76

Find the unknown length in the right triangle. If necessary, approximate the length to the nearest thousandth.

11)   11) _____

25 cm

?
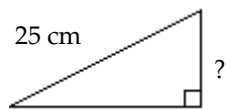
24 cm

    A) 7 cm   B) 1 cm   C) 9.322 cm   D) 3.678 cm

Find the probability of the event if a single choice is made from a bag.

12) A bag contains 7 red marbles, 2 blue marbles, and 1 green marble. What is the probability of   12) _____
choosing a marble that is not blue when one marble is drawn from the bag?

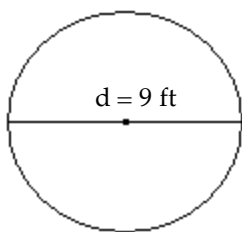   A) $\dfrac{4}{5}$ B) $\dfrac{5}{4}$ C) $\dfrac{1}{5}$ D) 8

Find the area of the geometric figure.

13)   13) _____

d = 9 ft

Use 3.14 for π.

    A) 63.585 sq ft   B) 254.34 sq ft   C) 127.17 sq ft   D) 56.52 sq ft

Solve the equation.

14) $8x - (4x - 1) = 2$

    A) $\dfrac{1}{4}$ B) $\dfrac{1}{12}$ C) $-\dfrac{1}{4}$ D) $-\dfrac{1}{12}$

14) _____

15) $\dfrac{5}{6}x + \dfrac{4}{3} = \dfrac{2}{3}x$

    A) -8   B) 8   C) -12   D) 12

15) _____

16) $9x + 5 - 9x - 5 = 6x - 6x - 3$

    A) 0   B) -288
    C) all real numbers   D) no solution

16) _____

17) $2(x + 5) = (2x + 10)$

    A) 20   B) 0
    C) all real numbers   D) no solution

17) _____

Solve the equation for the indicated variable.

18) $A = P + PRT$ for T

    A) $T = \dfrac{A - P}{PR}$ B) $T = \dfrac{P - A}{PR}$ C) $T = \dfrac{A}{R}$ D) $T = \dfrac{PR}{A - P}$

18) _____

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

19) $21x + 9 > 3(6x + 4)$

19) _____

A) $(1, \infty)$

B) $(-\infty, 1)$

C) $(-\infty, 1]$

D) $[1, \infty)$

3
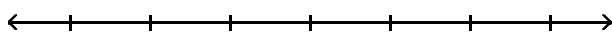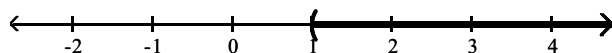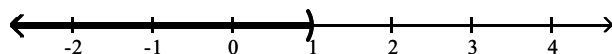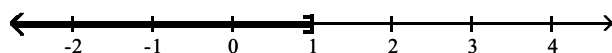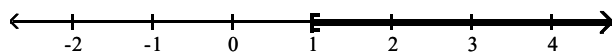
Determine whether the ordered pair is a solution of the given linear equation.

20) $-2y + 3x = -15$; $(5, 0)$ 20) _____
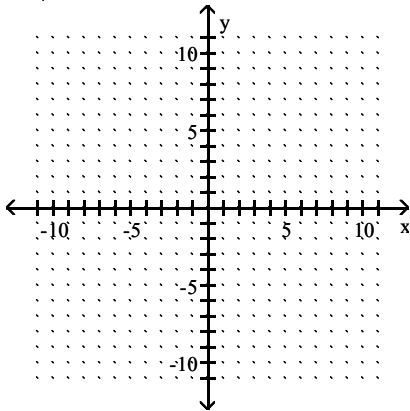
     A) no   B) yes

Find three ordered pair solutions by completing the table. Then use the ordered pairs to graph the equation.
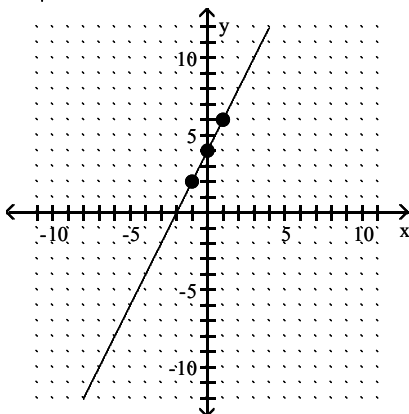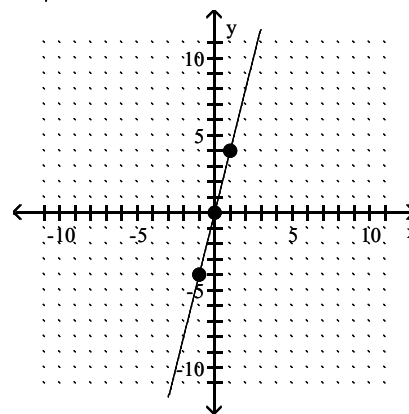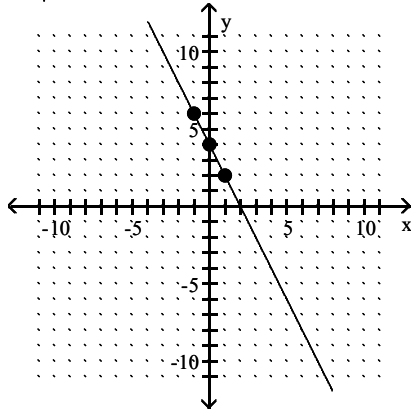
21) $y = 2x + 4$ 21) _____

x	y
0	
1	
−1	

A)

x	y
0	4
1	6
−1	2

B)

x	y
0	0
1	4
−1	−4

4

C)

x	y
0	4
1	2
−1	6

D)

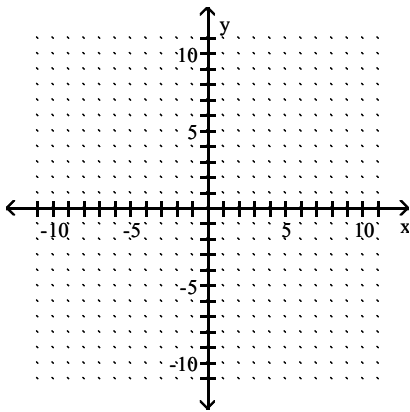| x	y
0	−4
1	−2
−1	−6
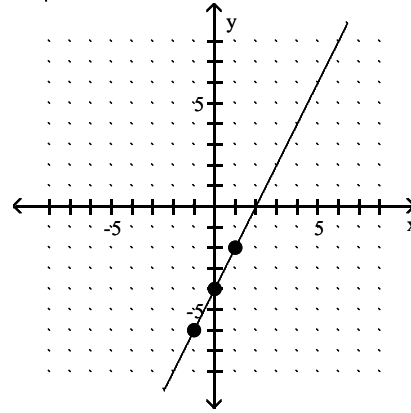
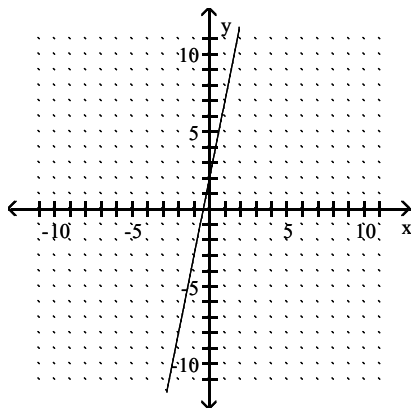Objective: (10.2) Graph a linear equation by finding and plotting ordered pair solutions.
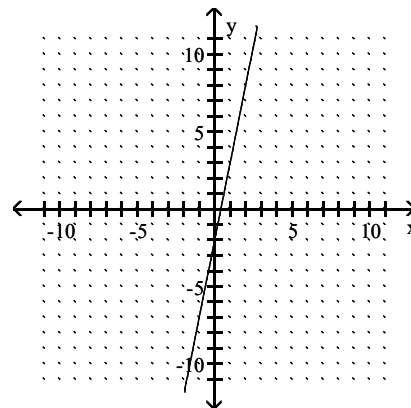m50−21

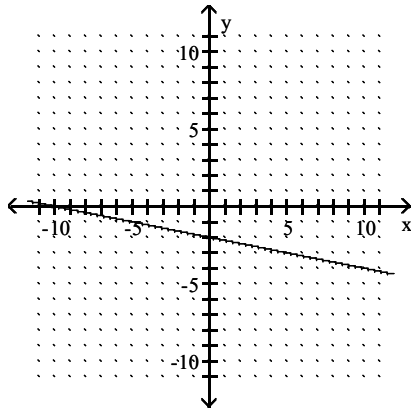**Graph the linear equation.**

22) $5y - 25x = 10$

22) _____

A)

B)

C)

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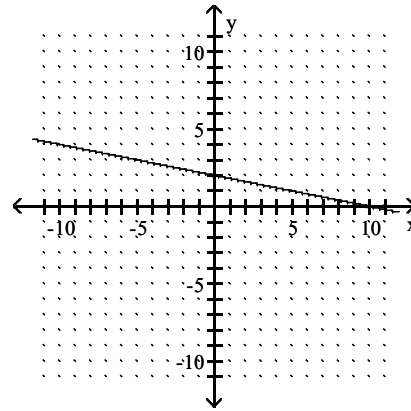
Find the slope of the line that passes through the given points.

23) (8, 5) and (6, 9)   23) _____

    A) – 2   B) $-\dfrac{1}{2}$ C) 1   D) 2

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

24) Slope 2, through (5, 2)   24) _____

    A) $y = 2x - 8$ B) $y = 2x + 8$ C) $x = 2y - 8$ D) $x = 2y + 8$

Evaluate the function.

25) Find f(4) when $f(x) = x^2 + 4x - 3$.   25) _____

    A) 29   B) 35   C) 3   D) –3

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