

Exam #1

Name \_\_\_\_\_

MATH 5TH GRADE WARMUPT1081 000000000223190 *Str 04819  
022319*

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

Write the whole number in expanded form.

1) 8354

- A)  $8000 + 300 + 50 + 4$   
C)  $4000 + 500 + 30 + 8$

- B)  $800 + 50 + 3$   
D) 8,354,000

$$8354 =$$

$$8000 + 300 + 50 + 4 = \text{ OR}$$

$$(8(1000) + 3(100) + 5(10) + 4(1)) =$$

Add.

2)  $30 + 400 + 70$

- A) 500

- B) 400

- C) 50

- D) 113

$$30 + 400 + 70 =$$

$$430 + 70 =$$

$$\boxed{500 =}$$

$$\begin{array}{r} 430 \\ + 70 \\ \hline 500 \end{array}$$

Subtract.

3)

$$\begin{array}{r} 699 \\ - 345 \\ \hline \end{array}$$

- A) 354

- B) 344

- C) 254

- D) 1044

$$\begin{array}{r} 699 \\ - 345 \\ \hline \end{array}$$

$$\boxed{354}$$

4)

$$\begin{array}{r} 944 \\ - 69 \\ \hline \end{array}$$

- A) 875

- B) 867

- C) 775

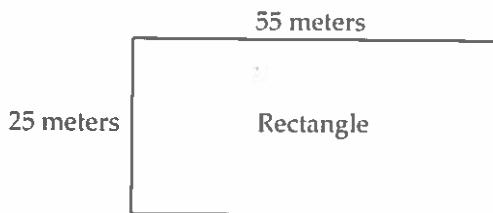
- D) 1013

$$\begin{array}{r} 944 \\ - 69 \\ \hline \end{array}$$

$$\boxed{875}$$

Find the perimeter.

5)



A) 160 m

B) 80 m

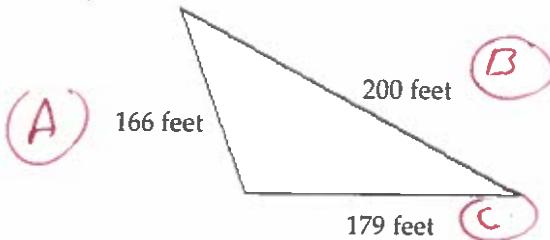
C) 1375 m

D) 135 m

$$\begin{aligned}P &= 2L + 2W \\P &= 2(55) + 2(25) \\P &= 110 + 50 \\P &= 160\end{aligned}$$

$$\begin{array}{r} 1 \\ \begin{array}{r} 55 \\ \times 2 \\ \hline 110 \end{array} \quad \begin{array}{r} 25 \\ \times 2 \\ \hline 50 \end{array} \\ \hline \begin{array}{r} 110 \\ + 50 \\ \hline 160 \end{array} \end{array}$$

6)



A) 545 ft

B) 366 ft

C) 36,166 ft

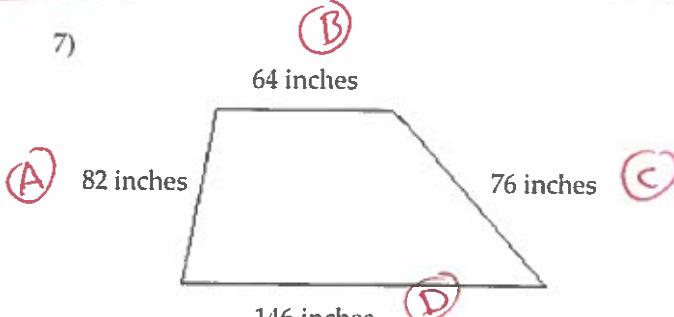
D) 535 ft

$$\begin{aligned}P &= A + B + C \\P &= 166 + 200 + 179\end{aligned}$$

$$\begin{array}{r} 1 \\ \begin{array}{r} 166 \\ 200 \\ 179 \\ \hline 545 \end{array} \end{array}$$

$$P = 545$$

7)



A) 368 in.

B) 280 in.

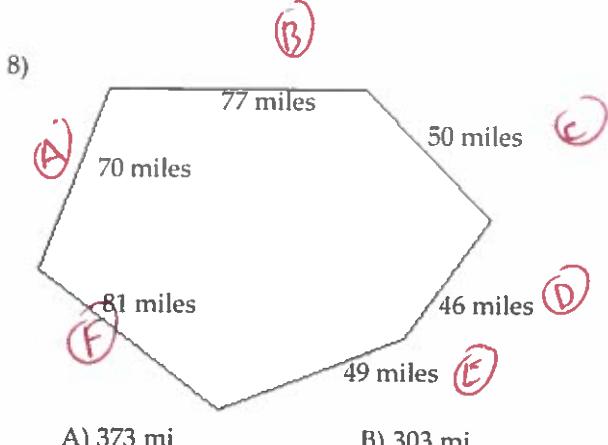
C) 316 in.

D) 304 in.

$$\begin{aligned}P &= A + B + C + D \\P &= 82 + 64 + 76 + 146 \\P &= 368\end{aligned}$$

$$\begin{array}{r} 82 \\ 64 \\ 76 \\ + 146 \\ \hline 368 \end{array}$$

7)



A) 373 mi

B) 303 mi

C) 393 mi

D) 450 mi

$$P = A + B + C + D + E + F$$

$$P = 70 + 77 + 50 + 46 + 49 + 81$$

$P = 373$

8) \_\_\_\_\_

70

77

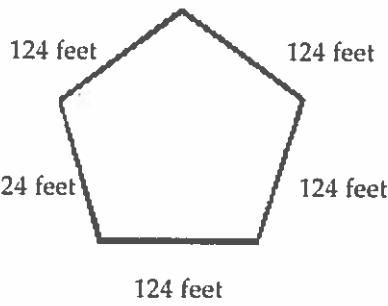
50

46

49

$$\begin{array}{r} + 81 \\ \hline 373 \end{array}$$

9)



A) 620 ft

B) 744 ft

C) 635 ft

D) 15,376 ft

$P = 5A$

$P = 5(124)$

$P = 620$

$$\begin{array}{r} 124 \\ \times 5 \\ \hline 620 \end{array}$$

9) \_\_\_\_\_

Round the whole number to the given place.

10) 287 to the nearest ten

A) 290

B) 300

C) 280

D) 390

10) \_\_\_\_\_

287

↑ since 7 ≥ 5  
round up

290

11) 2042 to the nearest hundred

A) 2000

B) 2100

C) 1900

D) 2010

11) \_\_\_\_\_

2042

↑ since 4 < 5  
do not round up

2000

12) 1699 to the nearest hundred

A) 1700

B) 1800

C) 1600

D) 1690

12) \_\_\_\_\_

 $16\ 99$   
 ↑      ↘

 Since  $9 \geq 5$   
 round up

 $1700$ 

13) 7143 to the nearest thousand

A) 7000

B) 8000

C) 6900

D) 7100

13) \_\_\_\_\_

 $7\ 143$   
 ↑      ↘

 Since  $1 < 5$   
 do not round up

 $7000$ 

Use the distributive property to rewrite the expression.

14)  $4(11 + 7)$ 

A)  $4 \cdot 11 + 4 \cdot 7$

B)  $4 \cdot 11 + 7$

C)  $4 \cdot 11 \cdot 7$

D)  $4 + 11 + 7$

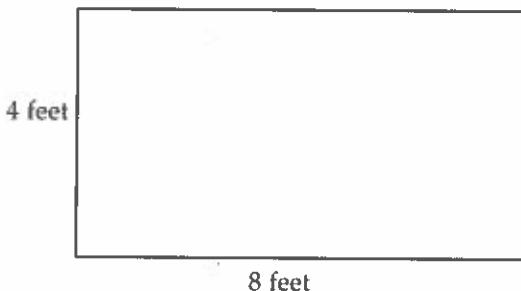
14) \_\_\_\_\_

$4(11+7) =$

$4 \cdot 11 + 4 \cdot 7 =$

Find the area of the rectangle.

15)



15) \_\_\_\_\_

$L = 8$   
 $W = 4$

A) 32 sq ft

B) 16 sq ft

C) 48 sq ft

D) 64 sq ft

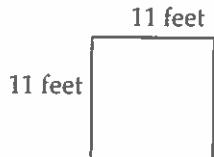
$A = L \cdot W$

$A = (8)(4)$

$A = 32$

16)

16) \_\_\_\_\_



$L = 11$   
 $W = 11$

A) 121 sq ft

B) 242 sq ft

C) 44 sq ft

D) 22 sq ft

$A = L \cdot W$

$A = (11)(11)$

$A = 121$

$$\begin{array}{r} 11 \\ \times 11 \\ \hline 11 \\ 11 \\ \hline 121 \end{array}$$

Divide.

17)  $4 \overline{)212}$   
A) 53

B) 55

C) 56

D) 51

$$\begin{array}{r} 53 \\ 4 \overline{)212} \\ - (2) \\ \hline 12 \\ - (12) \\ \hline 0 \text{ rem} \end{array}$$

17) \_\_\_\_\_

18)  $307 \div 9$

A) 34 R 1

B) 34

C) 34 R 8

D) 35

18) \_\_\_\_\_

$$\begin{array}{r} 34 \\ 9 \overline{)307} \\ - (27) \\ \hline 37 \\ - (36) \\ \hline 1 \text{ rem} \end{array}$$

34 r 1

or  $34\frac{1}{9}$

Solve.

- 19) One ticket won a prize of \$7,848,000. The winning ticket was purchased by 24 people who had pooled their money. Find how many dollars each person receives if they each receive an equal share.

19) \_\_\_\_\_

A) \$327,000

B) \$326,000

C) \$32,700

D) \$32,800

$$\begin{array}{r} 327,000 \\ 24 \overline{)7848000} \\ - (72) \\ \hline 64 \\ - (48) \\ \hline 168 \\ - (168) \\ \hline 0 \end{array}$$

- 20) There is a bridge over a certain highway every 7 miles. The first bridge is at the beginning of a 179-mile stretch of highway. Find how many bridges there are over 179 miles of the highway.

20) \_\_\_\_\_

A) 26 bridges

B) 25 bridges

C) 25 bridges

D) 29 bridges

$25\frac{4}{7}$  bridges

round up

26

$$\begin{array}{r} 25 \\ 7 \overline{)179} \\ - (14) \\ \hline 39 \\ - (35) \\ \hline 4 \text{ rem} \end{array}$$

$25\frac{4}{7}$

Find the average of the list of numbers.

21)  $67, 53, 36, 31, 60, 35$

A) 47

B) 48

C) 53

D) 45

$31, 35, 36, 53, 60, 67 \text{ rtw+14}$   
 $\underline{31 + 35 + 36 + 53 + 60 + 67} =$   
 $6$

$\frac{282}{6} =$   
 $47 =$

21)  $\underline{\quad 47\quad}$   
 $6 \overline{)282}$   
 $- (24)$   
 $\underline{42}$   
 $- (42)$   
 $0$

22)  $\underline{\quad\quad\quad}$

Evaluate.

22)  $6^2$

A) 36

B) 12

C) 64

D) 49

$6^2 =$   
 $6 \cdot 6 =$   
 $36 =$

23)  $4^3$

A) 64

B) 12

C) 65

D) 13

$4^3 =$   
 $4 \cdot 4 \cdot 4 =$   
 $16 \cdot 4 =$   
 $64 =$

23)  $\underline{\quad\quad\quad}$

Simplify.

24)  $9 \cdot 2 - 1$

A) 17

B) 19

C) 9

D) 18

$9 \cdot 2 - 1 =$   
 $18 - 1 =$   
 $17 =$

PEMDAS

24)  $\underline{\quad\quad\quad}$

25)  $38 + 8 \cdot 3$

A) 62

B) 138

C) 14

D) 418

$38 + 8 \cdot 3 =$   
 $38 + 24 =$   
 $62 =$

PEMDAS  
 $\begin{array}{r} 38 \\ + 24 \\ \hline 62 \end{array}$

25)  $\underline{\quad\quad\quad}$

26)  $17 \cdot 19 + 16 \cdot 12$

A) 515

B) 7140

C) 3587

D) 4068

26)  $\underline{\quad\quad\quad}$

$17 \cdot 19 + 16 \cdot 12 =$   
 $323 + 192 =$   
 $515 =$

PEMDAS  
 $\begin{array}{r} 17 \\ \times 19 \\ \hline 153 \\ 17 \\ \hline 323 \end{array}$      $\begin{array}{r} 16 \\ \times 12 \\ \hline 32 \\ 16 \\ \hline 192 \end{array}$      $\begin{array}{r} 323 \\ + 192 \\ \hline 515 \end{array}$

27)  $9 + 9 \div 3 \cdot 2 - 6$

A) 9

B) 6

C) 24

D) 21

$$\begin{aligned} 9 + 9 \div 3 \cdot 2 - 6 &= \\ 9 + 3 \cdot 2 - 6 &= \\ 9 + 6 - 6 &= \\ 15 - 6 &= \\ 9 &= \end{aligned}$$

**(PEMDAS)**

27) \_\_\_\_\_

28)  $7^2 - 3 \cdot 5$

A) 34

B) 230

C) 80

D) 140

$$\begin{aligned} 7^2 - 3 \cdot 5 &= \\ 7 \cdot 7 - 3 \cdot 5 &= \\ 49 - 3 \cdot 5 &= \\ 49 - 15 &= \\ 34 &= \end{aligned}$$

**(PEMDAS)**

28) \_\_\_\_\_

29)  $(7+2) \cdot (14-4)$

A) 90

B) 31

C) 27

D) 72

$$\begin{aligned} (7+2) \cdot (14-4) &= \\ (9) \cdot (10) &= \\ 9 \cdot 10 &= \end{aligned}$$

**(PEMDAS)**

29) \_\_\_\_\_

30)  $\frac{193+7}{3^2-4}$

A) 40

B) 100

C) 60

D) 38

$$\begin{aligned} \frac{193+7}{3^2-4} &= \\ \frac{193+7}{3 \cdot 3 - 4} &= \\ \frac{193+7}{9-4} &= \end{aligned}$$

$$\begin{aligned} &\frac{40}{5 \cdot 20} \\ &\frac{40}{(20)} \\ &\frac{0}{-(0)} \\ &0 \end{aligned}$$

$$\frac{20}{5} =$$

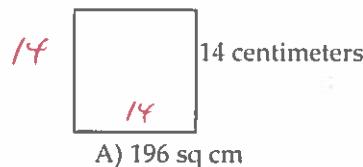
$$40 =$$

**(PEMDAS)**

30) \_\_\_\_\_

Find the area of the square.

31) 14



A) 196 sq cm

B) 392 sq cm

C) 56 sq cm

D) 191 sq cm

$$A = Lw$$
$$A = (14)(14)$$

$$\boxed{A = 196}$$

$$\begin{array}{r} 14 \\ \times 14 \\ \hline 56 \\ 14 \\ \hline 196 \end{array}$$

31) \_\_\_\_\_

Evaluate the expression for the given replacement values.

32)  $x - 5yz$  for  $x = 94, y = 3, z = 2$

A) 64

B) 534

C) 158

D) 84

$$x - 5yz =$$
$$(94) - 5(3)(2) =$$
$$94 - 15(2) =$$
$$94 - 30 =$$
$$\boxed{64} =$$

$$\begin{array}{r} 94 \\ - 30 \\ \hline 64 \end{array}$$

33)  $4x + 7$  for  $x = 9$

A) 43

B) 72

C) 11

D) 29

$$4x + 7 =$$
$$4(9) + 7 =$$
$$36 + 7 =$$
$$\boxed{43} =$$

$$\begin{array}{r} 36 \\ + 7 \\ \hline 43 \end{array}$$

34)  $4x + 5y$  for  $x = 8$  and  $y = 6$

A) 62

B) 37

C) 34

D) 9

$$4x + 5y =$$
$$4(8) + 5(6) =$$
$$32 + 30 =$$
$$\boxed{62} =$$

PEMDAS

34) \_\_\_\_\_

35)  $8x^2 + 5x$  for  $x = 4$

A) 148

B) 108

C) 84

D) 52

$$8x^2 + 5x =$$
$$8(4)^2 + 5(4) =$$
$$8(4)(4) + 5(4) =$$
$$8(16) + 5(4) =$$
$$128 + 20 =$$
$$\boxed{148} =$$

$$\begin{array}{r} 4 \\ \times 16 \\ \hline 128 \end{array}$$
$$\begin{array}{r} * 20 \\ \hline 148 \end{array}$$

PEMDAS

35) \_\_\_\_\_

Solve the equation.

36)  $a + 1 = 13$

A) 12

$$a + 1 = 13$$

$$a + 1 - 1 = 13 - 1$$

$$\boxed{a = 12}$$

B) -12

C) -14

D) 14

36) \_\_\_\_\_

Check  $a + 1 = 13$

$$(12) + 1 = 13$$

$$12 + 1 = 13$$

$$13 = 13$$

Good

37)  $s - 4 = 19$

A) 23

$$\begin{aligned} s - 4 &= 19 \\ s - 4 + 4 &= 19 + 4 \\ \boxed{s = 23} \end{aligned}$$

B) -23

C) 15

D) -15

37) \_\_\_\_\_

Check  $s - 4 = 19$

$$(23) - 4 = 19$$

$$23 - 4 = 19$$

$$19 = 19$$

Good

38)  $6x = 54$

A) 9

$$\begin{aligned} 6x &= 54 \\ \frac{6x}{6} &= \frac{54}{6} \\ \boxed{x = 9} \end{aligned}$$

B) 48

C) 60

D) 324

Check

$$6x = 54$$

$$6(9) = 54$$

$$54 = 54 \quad \text{Good}$$

38) \_\_\_\_\_

39)  $x + 3 = 7$

A) 4

$$\begin{aligned} x + 3 &= 7 \\ x + 3 - 3 &= 7 - 3 \\ \boxed{x = 4} \end{aligned}$$

B) -4

C) -10

D) 10

Check  $x + 3 = 7$

$$(4) + 3 = 7$$

$$4 + 3 = 7$$

$$7 = 7$$

Good

39) \_\_\_\_\_

40)  $5 + 24 = x + 8$

A) 21

B) -21

C) -37

D) 37

40) \_\_\_\_\_

$$5 + 24 = x + 8$$

$$29 = x + 8$$

$$29 - 8 = x + 8 - 8$$

$$\boxed{21 = x}$$

Check  $5 + 24 = x + 8$

$$5 + 24 = (21) + 8$$

$$5 + 24 = 21 + 8$$

$$29 = 29$$

Good

41)  $4w - 16 = 0$

A) 4

B) -4

C) 0

D) 16

$$\begin{aligned} 4w - 16 &= 0 \\ 4w - 16 + 16 &= 0 + 16 \\ 4w &= 16 \\ \frac{4w}{4} &= \frac{16}{4} \rightarrow w = 4 \end{aligned}$$

check

$$\begin{aligned} 4w - 16 &= 0 \\ 4(4) - 16 &= 0 \\ 16 - 16 &= 0 \\ 0 &= 0 \text{ Good} \end{aligned}$$

42)  $5x + 4 = 49$

A) 9

B) 40

C) 44

D) 5

$$\begin{aligned} 5x + 4 &= 49 \\ 5x + 4 - 4 &= 49 - 4 \\ 5x &= 45 \\ \frac{5x}{5} &= \frac{45}{5} \\ x &= 9 \end{aligned}$$

check

$$\begin{aligned} 5x + 4 &= 49 \\ 5(9) + 4 &= 49 \\ 45 + 4 &= 49 \\ 49 &= 49 \text{ Good} \end{aligned}$$

43)  $96 = 10x - 4$

A) 10

B) 90

C) 94

D) 13

$$\begin{aligned} 96 &= 10x - 4 \\ 96 + 4 &= 10x - 4 + 4 \\ 100 &= 10x \\ \frac{100}{10} &= \frac{10x}{10} \rightarrow 10 = x \end{aligned}$$

$$\begin{aligned} 96 &= 10x - 4 \\ 96 &= 10(10) - 4 \\ 96 &= 100 - 4 \\ 96 &= 96 \text{ Good} \end{aligned}$$

Multiply. Write the answer in simplest form.

44)  $\frac{6}{7} \cdot \frac{2}{5}$

44)

A)  $\frac{12}{35}$

B)  $\frac{35}{12}$

C)  $\frac{7}{15}$

D)  $\frac{2}{3}$

$$\begin{aligned} \frac{6}{7} \cdot \frac{2}{5} &= \frac{(2)(3)(2)}{(7)(5)} = \\ \frac{(2)(3)}{(7)} \cdot \frac{(2)}{(5)} &= \frac{12}{35} \end{aligned}$$

Primes 2, 3, 5, 7, 11

$$\begin{array}{r} 2(6) \\ 3(3) \\ \hline 6 = 2 \cdot 3 \end{array}$$

Divide and simplify.

45)  $\frac{3}{13} \div \frac{6}{19}$

45)

A)  $\frac{19}{26}$

B)  $\frac{26}{19}$

C)  $\frac{9}{32}$

D)  $\frac{18}{247}$

$$\begin{aligned} \frac{3}{13} \div \frac{6}{19} &= \frac{(3)}{(13)} \cdot \frac{(19)}{(2)(3)} = \\ \frac{3}{13} \cdot \frac{19}{6} &= \text{Rewrite} \\ \frac{(3)}{13} \cdot \frac{19}{(2)(3)} &= \frac{19}{26} = 10 \end{aligned}$$

$$\begin{array}{r} \text{Primes } 2, 3, 5, 7, 11, 13, 17, 19 \\ 2(6) \\ 3(3) \\ \hline 6 = 2 \cdot 3 \end{array}$$

46)  $\frac{7}{3} \div \frac{1}{9}$

A) 21

B)  $\frac{7}{27}$

C)  $\frac{1}{21}$

D)  $\frac{27}{7}$

$$\begin{aligned}\frac{7}{3} \div \frac{1}{9} &= \cancel{\frac{7}{3}} \cdot \cancel{\frac{1}{9}} = \\ \frac{7}{3} \cdot \frac{9}{1} &= \text{rewrite} \quad \cancel{(3)} \cdot \cancel{\frac{(3)(3)}{1}} = \\ \frac{7(3)}{1} &= \\ \frac{21}{1} &= \end{aligned}$$

47)  $-\frac{1}{5} \div 2$

A)  $-\frac{1}{10}$

B)  $-\frac{2}{5}$

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

D)  $-\frac{1}{5}$

$$\begin{aligned}-\frac{1}{5} \div 2 &= \\ -\frac{1}{5} \div \frac{2}{1} &= \cancel{\frac{(-1)(1)}{(5)(2)}} = \\ -\frac{1}{5} \cdot \frac{1}{2} &= \text{rewrite} \quad \cancel{\frac{-1}{10}} = \end{aligned}$$

48)  $30 \div \frac{1}{5}$

A) 150

B) 6

C)  $\frac{1}{150}$

D)  $\frac{1}{6}$

$$\begin{aligned}30 \div \frac{1}{5} &= \\ \frac{30}{1} \div \frac{1}{5} &= \cancel{\frac{(30)(5)}{(1)(1)}} = \\ \frac{30}{1} \cdot \frac{5}{1} &= \text{rewrite} \quad \cancel{\frac{150}{1}} = \end{aligned}$$

Solve. Write the fraction in simplest form.

49) Find  $\frac{1}{12}$  of 120.

A) 10

B) 12

C) 1440

D)  $\frac{1}{1440}$

$$\begin{aligned}\frac{1}{12} (120) &= \\ \frac{1}{12} \cdot \frac{120}{1} &= \\ \frac{1}{(2)(2)(3)} \cdot \frac{(2)(2)(2)(3)(5)}{1} &= \\ \cancel{\frac{1}{(2)(2)(3)}} \cdot \cancel{\frac{(2)(2)(2)(3)(5)}{1}} &= \\ \frac{(1)(2)(5)}{1} &= \frac{10}{1} = \end{aligned}$$

$$\begin{aligned}\text{Primes } 2, 3, 5, 7, 11, 13, 17, 19, \dots \\ 2(120) \\ 2(60) \\ 2(30) \\ 3(15) \\ 5(5) \\ 12 = 2 \cdot 2 \cdot 3 \\ 120 = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 5 \end{aligned}$$

Insert  $<$ ,  $>$ , or  $=$  between the pair of numbers to form a true statement.

50)  $0.86 \underline{\hspace{1cm}}$   $0.87$

A)  $<$

B)  $>$

C)  $=$

50)  $\underline{\hspace{1cm}}$

$0.86 < 0.87$

51)  $0.661 \underline{\hspace{1cm}}$   $0.66100$

A)  $=$

B)  $>$

C)  $<$

51)  $\underline{\hspace{1cm}}$

$0.66100 = 0.66100$

52)  $0.2 \underline{\hspace{1cm}}$   $0.0865$

A)  $>$

B)  $<$

C)  $=$

52)  $\underline{\hspace{1cm}}$

$0.2000 > 0.0865$

Round the decimal to the given place value.

53) 3.845, nearest hundredth

A) 3.85

B) 3.86

C) 3.84

D) 3.845

53)  $\underline{\hspace{1cm}}$

$3.845$   
↑ since  $5 \geq 5$   
round up

$3.85$

54) 51.4, nearest ten

A) 50

B) 51

C) 49

D) 51.4

54)  $\underline{\hspace{1cm}}$

$51.4$   
↑ since  $1 < 5$   
do not round up

$50$

55) 25.6339, nearest thousandth

A) 25.634

B) 25.644

C) 25.624

D) 25.6339

55)  $\underline{\hspace{1cm}}$

$25.6339$   
↑ since  $9 \geq 5$   
round up

$25.634$

Insert  $<$ ,  $>$ , or  $=$  between the pair of numbers to form a true statement.

56)  $0.419 \underline{\hspace{1cm}}$   $0.479$

A)  $<$

B)  $>$

C)  $=$

56)  $\underline{\hspace{1cm}}$

$0.419 < 0.479$

57)  $0.688 \underline{\hspace{1cm}}$   $0.687$

A)  $>$

B)  $<$

C)  $=$

57)  $\underline{\hspace{1cm}}$

$0.688 > 0.687$

58)  $\frac{32}{5} \underline{\quad} 6.401$

A) <

B) >

C) =

$$\frac{32}{5}$$

$$6.401$$

$$6.4 < 6.401$$

58)  $\underline{\quad}$

$$\begin{array}{r} 6.4 \\ 5 \overline{) 32.0} \\ - (32) \\ \hline 20 \\ - (20) \\ \hline 0 \text{ m} \end{array}$$

Solve the proportion.

59)  $\frac{7}{11} = \frac{x}{22}$

A) 14

B) 7

C) 77

D) 2

$$\frac{7}{11} = \frac{x}{22}$$

cross mult

$$7(22) = 11(x)$$

$$154 = 11x$$

$$\frac{154}{11} = x$$

$$14 = x$$

Solve.

60) The scale on a map states that 1 centimeter corresponds to 40 kilometers. On the map, two cities are 21 cm apart. Find the actual distance.

A) 840 km

B) 84 km

C) 8400 km

D) 84,000 km

$$\frac{1}{40} = \frac{21}{N}$$

cross mult

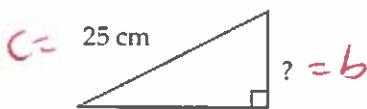
$$1(N) = 40(21)$$

$$N = 840$$

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

61)

61)  $\underline{\quad}$



$$a = 24 \text{ cm}$$

A) 7 cm

B) 1 cm

C) 9.322 cm

D) 3.678 cm

$$a^2 + b^2 = c^2$$

$$a^2 + b^2 = c^2$$

$$(24)^2 + b^2 = (25)^2$$

$$576 + b^2 = 625$$

$$576 + b^2 - 576 = 625 - 576$$

$$b^2 = 49$$

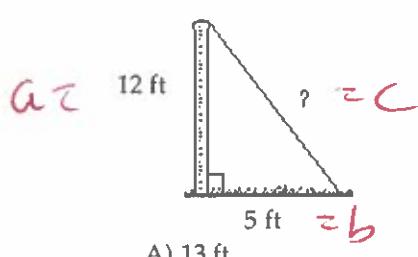
$$\sqrt{b^2} = \sqrt{49}$$

$$b = 7$$

Solve.

- 62) One end of a guy wire is attached to the top of a 12-foot pole and the other end is anchored into the ground 5 feet from the base of the pole. Find the length of the guy wire. If necessary, round to the nearest tenth foot.

62)



$$a^2 + b^2 = c^2$$

A) 13 ft

B) 17 ft

C) 13.7 ft

D) 17.7 ft

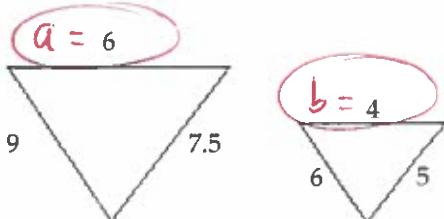
$$\begin{aligned} a^2 + b^2 &= c^2 \\ (12)^2 + (5)^2 &= c^2 \\ 144 + 25 &= c^2 \\ 169 &= c^2 \\ \sqrt{169} &= \sqrt{c^2} \end{aligned}$$

$$13 = c$$

$$\begin{array}{r} 12 \\ \times 12 \\ \hline 24 \\ 12 \\ \hline 144 \end{array} \quad \begin{array}{r} 5 \\ \times 5 \\ \hline 25 \end{array}$$

Find the ratio of the corresponding sides of the given similar triangles.

63)



63)

A)  $\frac{3}{2}$

B)  $\frac{2}{3}$

C)  $\frac{4}{5}$

D)  $\frac{6}{5}$

$$\begin{aligned} \frac{a}{b} &= \frac{6}{4} = \frac{3}{2} \\ \frac{6}{4} &= \frac{3}{2} \end{aligned}$$

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

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

64)

A)  $\frac{4}{5}$

B)  $\frac{5}{4}$

C)  $\frac{1}{5}$

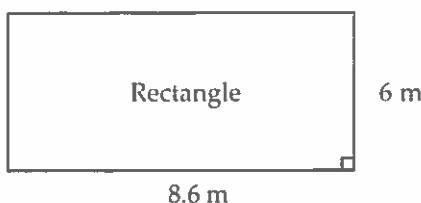
D) 8

$$\begin{aligned} \frac{\text{NOT Blue}}{\text{all}} &= \frac{8}{10} = \frac{4}{5} \\ \frac{\text{Red or Green}}{\text{all}} &= \frac{(7)(2)(1)}{(7)(2)(5)} = \frac{14}{35} = \frac{2}{5} \\ \frac{7+1}{7+2+1} &= \frac{8}{10} = \frac{4}{5} \end{aligned}$$

$$\begin{aligned} \frac{8}{10} &= \frac{4}{5} \\ \frac{(7)(2)(1)}{(7)(2)(5)} &= \frac{14}{35} = \frac{2}{5} \\ \frac{2}{5} &= \frac{4}{10} \end{aligned}$$

Find the area of the geometric figure.

65)



A) 51.6 sq m

B) 5.16 sq m

C) 14.6 sq m

D) 516 sq m

$$A = L \cdot W$$

$$A = (8.6)(6)$$

$$A = 51.6$$

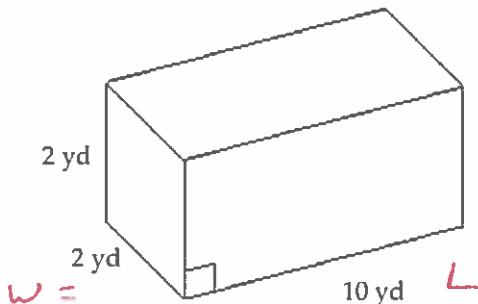
$$L = 8.6$$

$$W = 6$$

$$\begin{array}{r} 8.6 \\ \times 6 \\ \hline 51.6 \end{array}$$

Find the volume of the solid. Use  $\frac{22}{7}$  for  $\pi$ .

66)



A) 40 cu yd

B) 20 cu yd

C) 14 cu yd

D) 200 cu yd

$$V = L \cdot W \cdot H$$

$$L = 10$$

$$W = 2$$

$$H = 2$$

$$V = L \cdot W \cdot H$$

$$V = (10)(2)(2)$$

$$V = 20(2)$$

$$V = 40$$

Convert the measurement as indicated.

67) 36 in. to feet

67)

A) 3 ft

B)  $\frac{1}{4}$  ft

C) 12 ft

D) 108 ft

$$36 \text{ in to feet} =$$

$$3 \text{ feet} =$$

$$\frac{36}{12} = \frac{12\sqrt[3]{36}}{(36)}$$

68) 4 ft to inches

A) 48 in.

B) 12 in.

C) 16 in.

68) \_\_\_\_\_

$$\begin{aligned}4 \text{ feet} &= \\4(12) &= \\48 &\end{aligned}$$

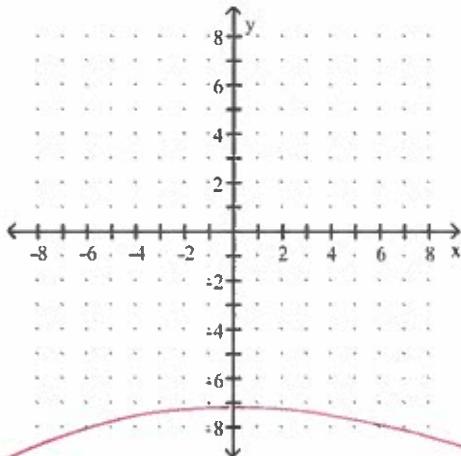
$$\begin{array}{r} \times 12 \\ \hline 4 \\ \hline 48 \end{array}$$

$$1 \text{ foot} = 12 \text{ inches}$$

Plot the ordered pair. State in which quadrant or on which axis the point lies.

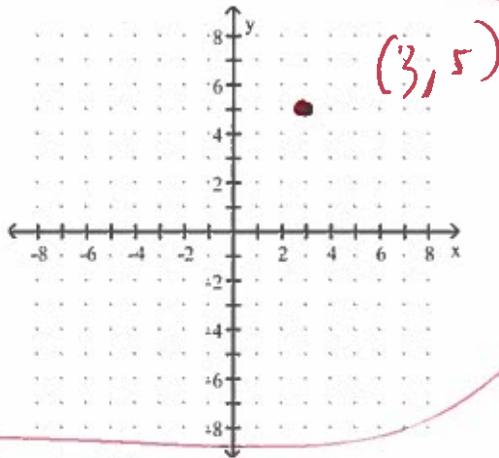
69) (3, 5)

69) \_\_\_\_\_

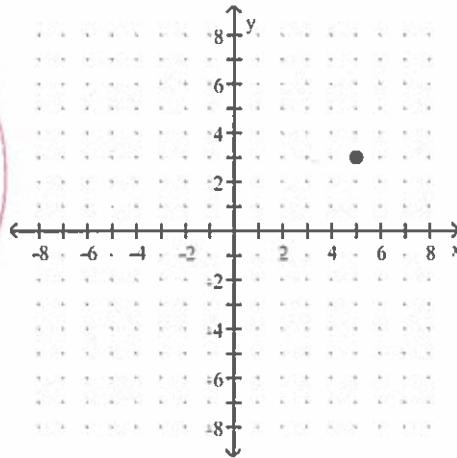


(3, 5)  
Go right 3  
Go up 5

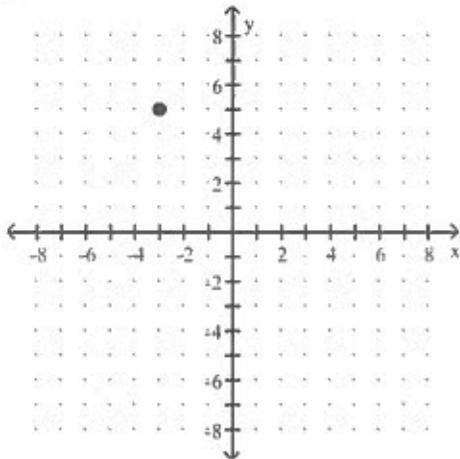
A) quadrant I



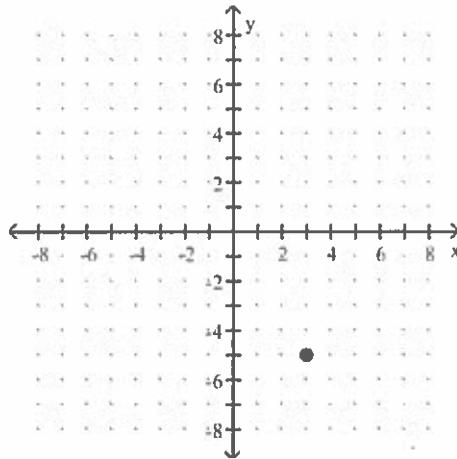
B) quadrant I

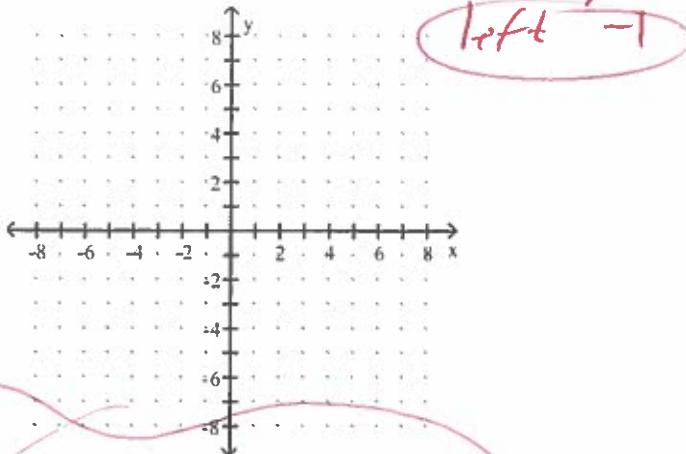


C) quadrant II



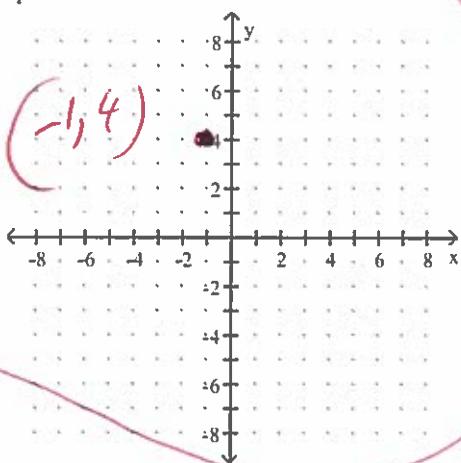
D) quadrant IV



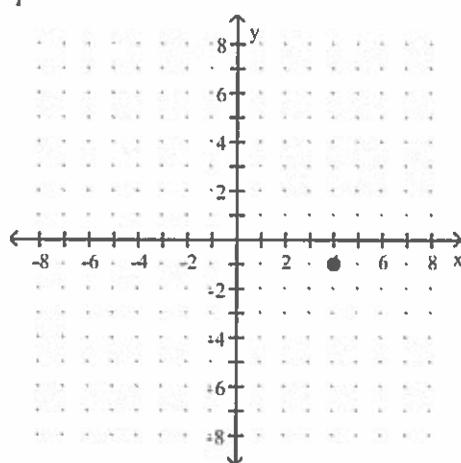
70)  $(-1, 4)$ 

70) \_\_\_\_\_

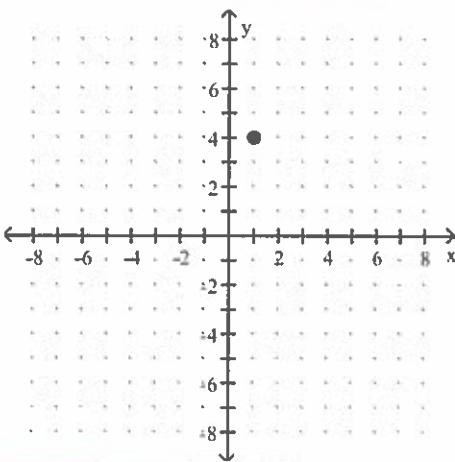
A) quadrant II



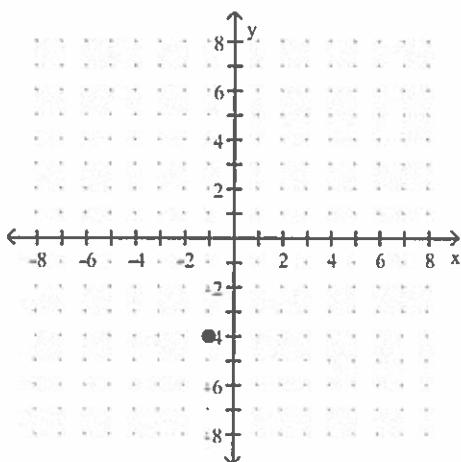
B) quadrant IV



C) quadrant I



D) quadrant III



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

71)  $-2y + 3x = -15; (5, 0)$

A) no  $x \neq$ 

subst

B) yes

71) \_\_\_\_\_

$$-2(0) + 3(5) = -15$$

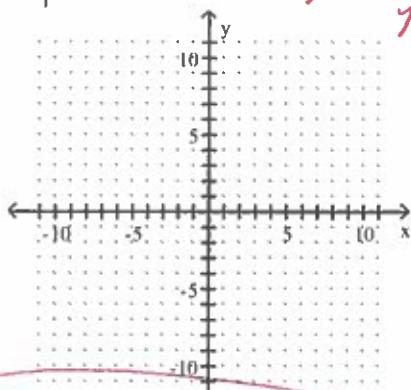
$$0 + 15 = -15$$

$$15 \neq -15$$

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

72)  $y = 2x + 4$

x	y
0	
1	
-1	



$$y = 2x + 4$$

$$y = 2(-1) + 4$$

$$y = -2 + 4$$

$$y = 2$$

$$y = 2x + 4$$

$$y = 2(0) + 4$$

$$y = 0 + 4$$

$$y = 4$$

$$y = 2x + 4$$

$$y = 2(1) + 4$$

$$y = 2 + 4$$

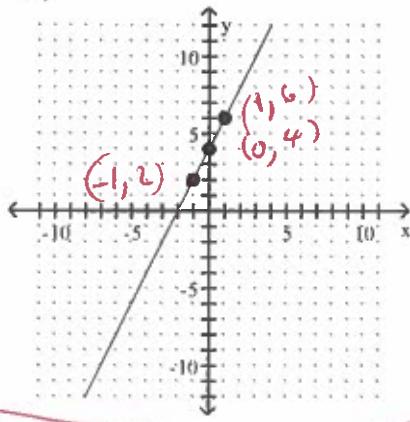
$$y = 6$$

72)

x	y
-1	2
0	4
1	6

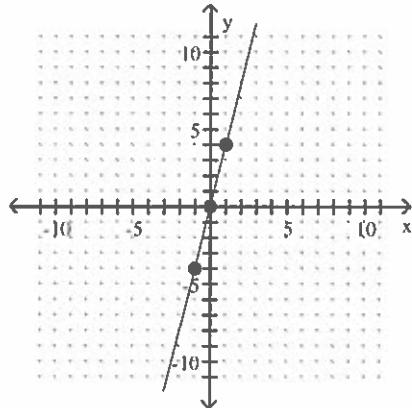
A)

x	y
0	4
1	6
-1	2



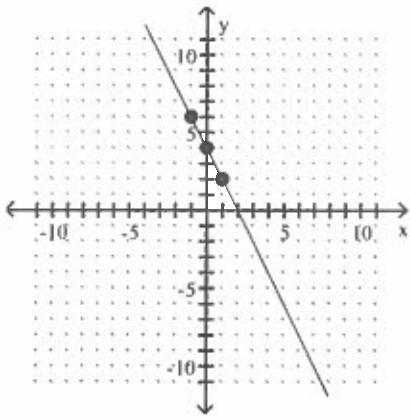
B)

x	y
0	0
1	4
-1	-4



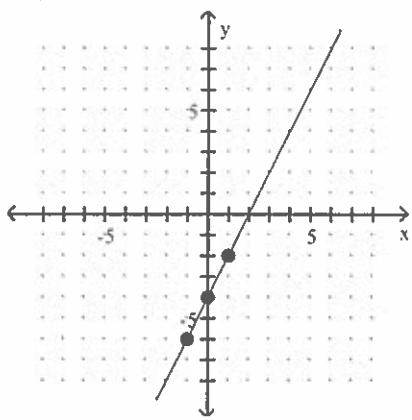
C)

x	y
0	4
1	2
-1	6



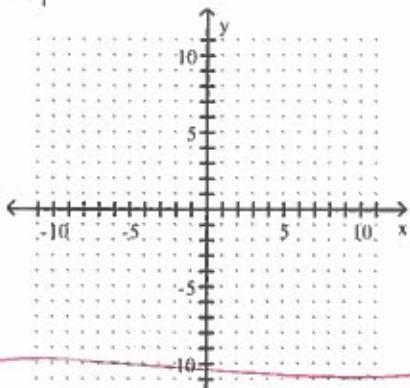
D)

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



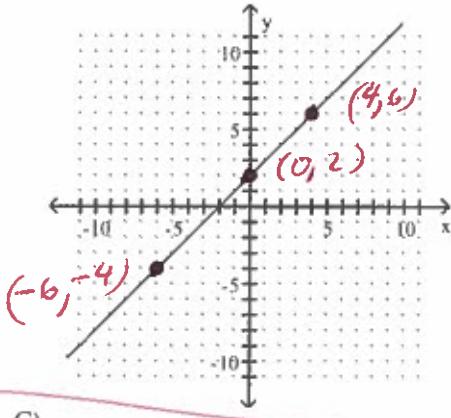
73)  $y = x + 2$

x	y
4	
-6	
0	



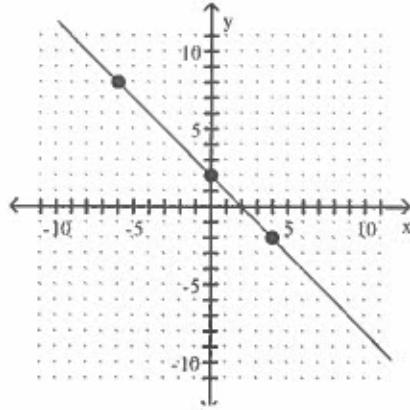
A)

x	y
4	6
-6	-4
0	2



C)

x	y
4	-2
-6	8
0	2



$$\begin{aligned}y &= x + 2 \\y &= (-6) + 2 \\y &= -6 + 2 \\y &= -4\end{aligned}$$

$$\begin{aligned}y &= x + 2 \\y &= (0) + 2 \\y &= 0 + 2 \\y &= 2\end{aligned}$$

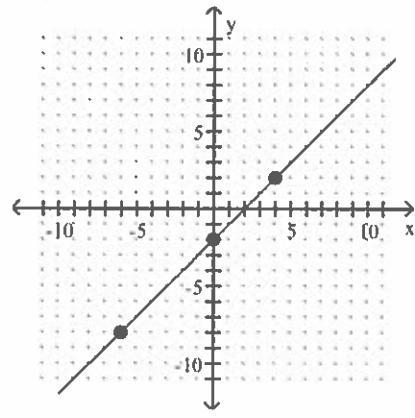
$$\begin{aligned}y &= x + 2 \\y &= (4) + 2 \\y &= 4 + 2 \\y &= 6\end{aligned}$$

73) \_\_\_\_\_

x	y
-6	-4
0	2
4	6

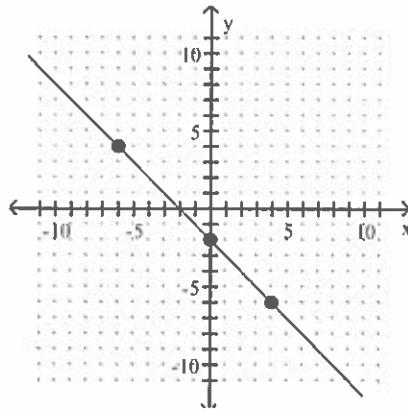
B)

x	y
4	2
-6	-8
0	-2



D)

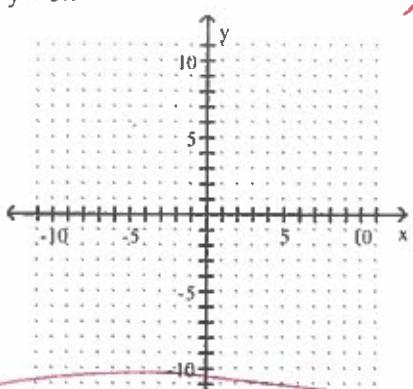
x	y
4	-6
-6	4
0	-2



Graph the linear equation.

74)  $y = 5x$

$$\begin{aligned}y &= 5x \\y &= 5(0) \\y &= 0\end{aligned}$$

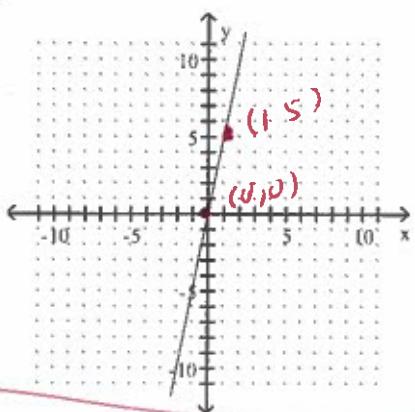


$$\begin{aligned}y &= 5x \\y &= 5(1) \\y &= 5\end{aligned}$$

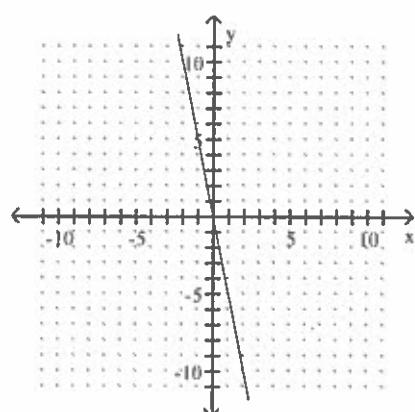
74) \_\_\_\_\_

~~$\frac{x}{1}$~~   
 ~~$\frac{y}{0}$~~   
 ~~$\frac{1}{1}$~~   
 ~~$\frac{5}{5}$~~

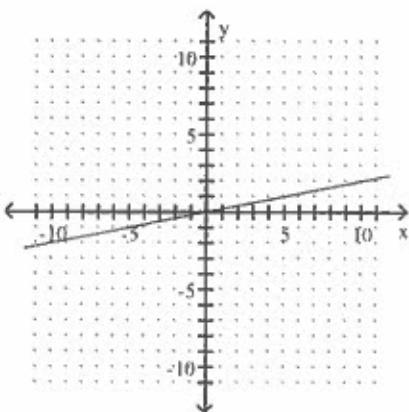
A)



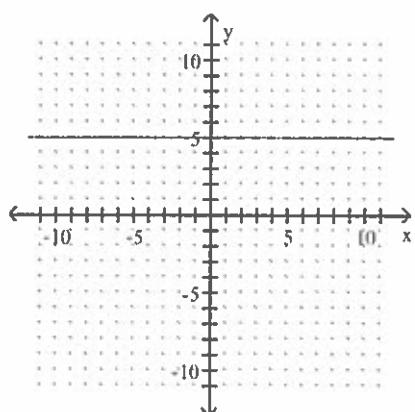
B)



C)



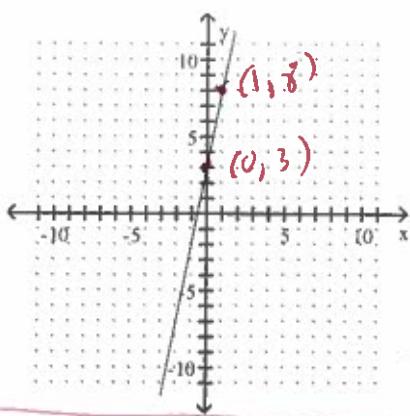
D)



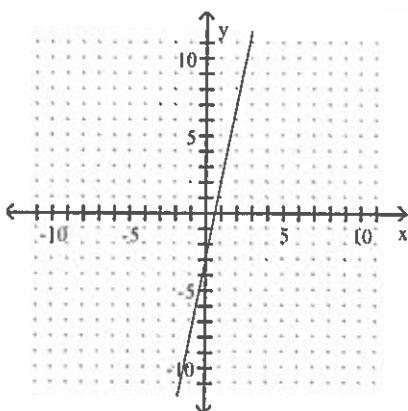
Match the graph with its equation.

75)  $y = 5x + 3$

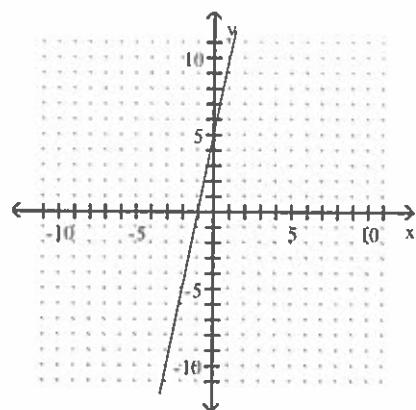
A)



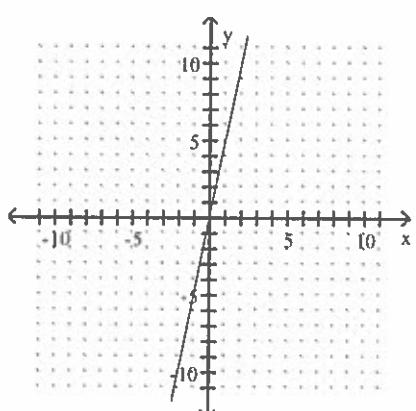
C)



B)



D)



75) \_\_\_\_\_

$$y = 5x + 3$$

$$y = 5(0) + 3$$

$$y = 0 + 3$$

$$y = 3$$

$$y = 5(1) + 3$$

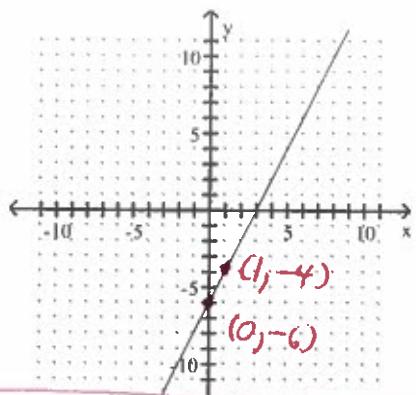
$$y = 5 + 3$$

$$y = 8$$

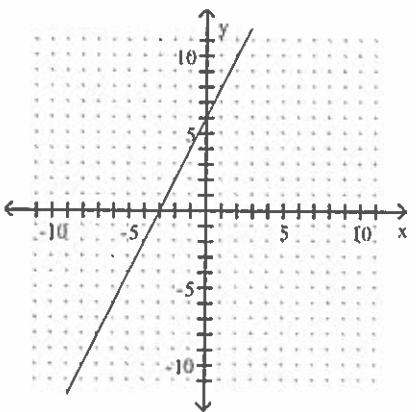
x	y
0	3
1	8

76)  $y = 2x - 6$

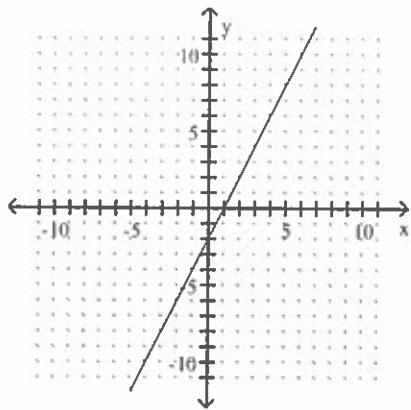
A)



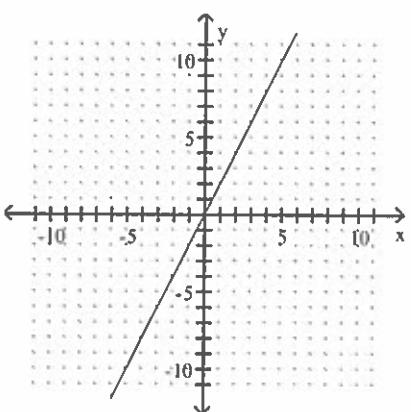
C)



B)



D)



76) \_\_\_\_\_

$$y = 2x - 6$$

$$y = 2(0) - 6$$

$$y = 0 - 6$$

$$y = -6$$

$$y = 2x - 6$$

$$y = 2(1) - 6$$

$$y = 2 - 6$$

$$y = -4$$

$$\begin{array}{|c|c|} \hline x & y \\ \hline 0 & -6 \\ 1 & -4 \\ \hline \end{array}$$

Evaluate the function.

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

A) 29

B) 35

C) 3

D) -3

77) \_\_\_\_\_

$$f(x) = x^2 + 4x - 3$$

$$f(4) = (4)^2 + 4(4) - 3$$

$$f(4) = (4)(4) + 4(4) - 3$$

$$f(4) = 16 + 16 - 3$$

$$f(4) = 32 - 3$$

$$f(4) = 29$$

78) Find  $f(0)$  when  $f(x) = x^2 + 4x + 4$ .

A) 4

B) -4

C) 0

D) 16

78) \_\_\_\_\_

$$f(x) = x^2 + 4x + 4$$

$$f(0) = (0)^2 + 4(0) + 4$$

$$f(0) = (0)(0) + 4(0) + 4$$

$$f(0) = 0 + 0 + 4$$

$$f(0) = 0 + 4$$

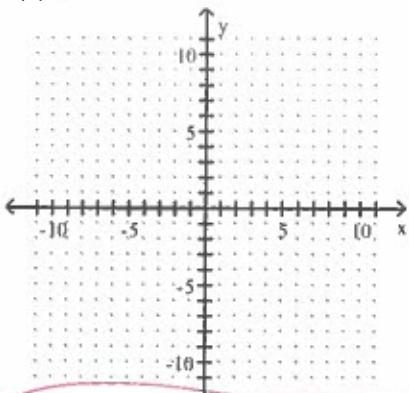
$$f(0) = +4$$

$$(0) = 4$$

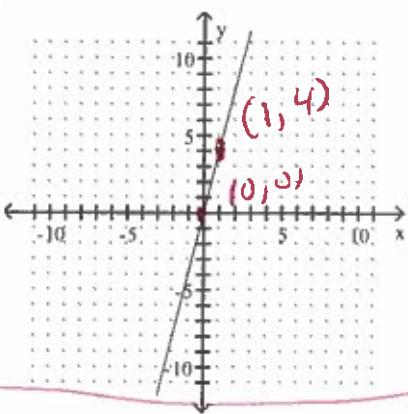
Graph the linear function.

79)  $f(x) = 4x$

79) \_\_\_\_\_

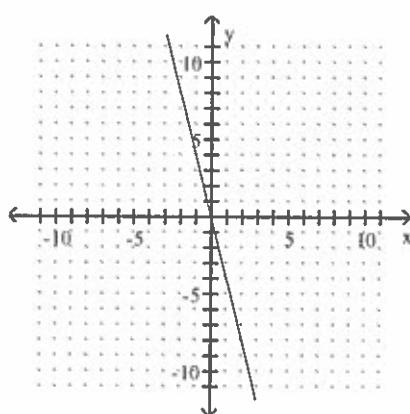


A)

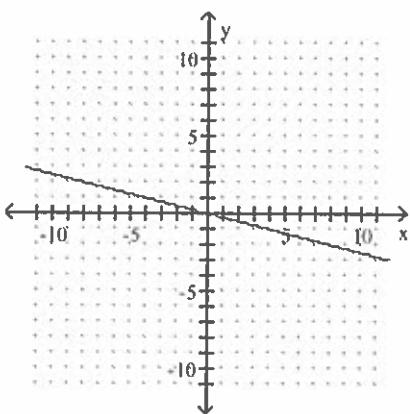
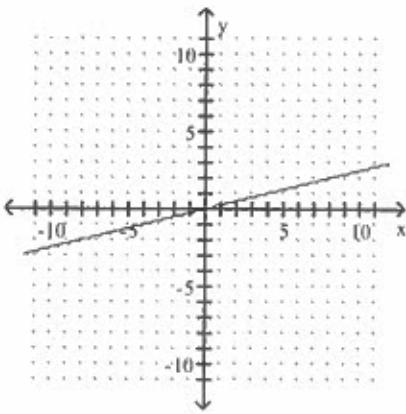


C)

B)



D)



$$f(x) = 4x$$

$$f(x) = 4x$$

$$f(0) = 4(0)$$

$$f(1) = 4(1)$$

$$f(0) = 0$$

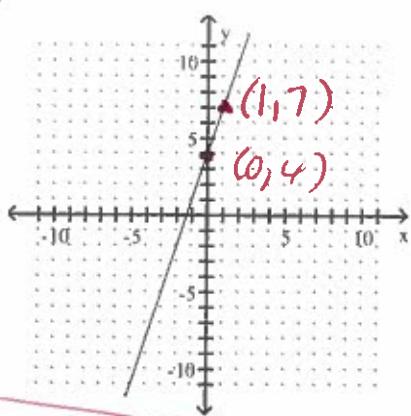
$$f(1) = 4$$

$$\begin{array}{c|cc} X & f(x) \\ \hline 0 & 0 \\ 1 & 4 \end{array}$$

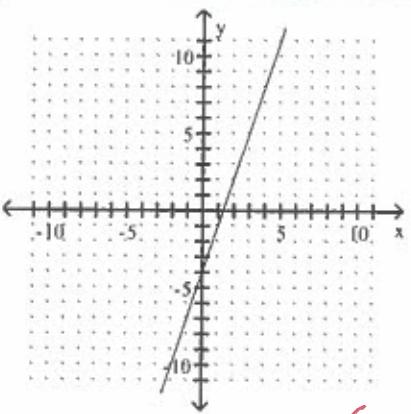
Match the linear function with its graph.

80)  $f(x) = 3x + 4$

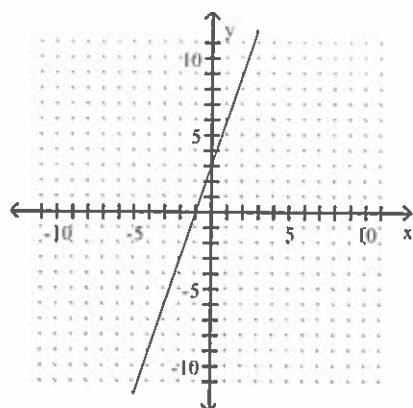
A)



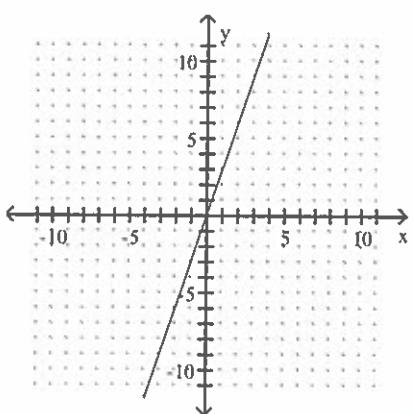
C)



B)



D)



80) \_\_\_\_\_

$$f(x) = 3x + 4$$

$$f(0) = 3(0) + 4$$

$$f(0) = 0 + 4$$

$$f(0) = 4$$

$$f(x) = 3x + 4$$

$$f(1) = 3(1) + 4$$

$$f(1) = 3 + 4$$

$$f(1) = 7$$

X ~~7~~  
0 ~~4~~  
1 ~~7~~

Find the square root.

81)  $\sqrt{25}$

A) 5

B) 10

C) 2.5

D) 20

81) \_\_\_\_\_

$$\sqrt{25} =$$

$$5 =$$

Primo 2, 3, 5, 7, 11.

$$5 \sqrt{25}$$

$$5 \sqrt{5}$$

$$5^2 =$$

$$5 \cdot 5 =$$

$$25$$

Answer Key

Testname: AAFMATH5THWARMT1081L

- 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) A
- 17) A
- 18) A
- 19) A
- 20) A
- 21) A
- 22) A
- 23) A
- 24) A
- 25) A
- 26) A
- 27) A
- 28) A
- 29) A
- 30) A
- 31) A
- 32) A
- 33) A
- 34) A
- 35) A
- 36) A
- 37) A
- 38) A
- 39) A
- 40) A
- 41) A
- 42) A
- 43) A
- 44) A
- 45) A
- 46) A
- 47) A
- 48) A
- 49) A
- 50) A

Answer Key

Testname: AAFMATH5THWARMT1081L

- 51) A
- 52) A
- 53) A
- 54) A
- 55) A
- 56) A
- 57) A
- 58) A
- 59) A
- 60) A
- 61) A
- 62) A
- 63) A
- 64) A
- 65) A
- 66) A
- 67) A
- 68) A
- 69) A
- 70) A
- 71) A
- 72) A
- 73) A
- 74) A
- 75) A
- 76) A
- 77) A
- 78) A
- 79) A
- 80) A
- 81) A