Name:_____Date:_____

Chapter 1

Write the letter for the correct answer in the blank at the left of each question.

1.) Write an algebraic expression for *the sum of a number and 8.*

A. 8x

B.   x - 8

C. x + 8

D. x ÷ 8

2.) Write an algebraic expression for *3 time x squared minus 4 times x.*

A. $3(2x) - 4x$

B. $4 - 3x$

C. $3x^2 - 4x$

D. $3(x - 4x)$

3.) Write an algebraic expression for *27 decreased by a number.*

A. 27 + m

B. 27 - m

C. 2m - 27

D. $\frac{27}{m}$

4.) Write a verbal expression for $3n - 8$.

A. the product of 3, n, and 8

B. 3 times n more than 8

C. n minus 8 times 3

D. 8 less than the product of 3 and n

5.) Write a verbal expression for 19a.

A. the sum of 19 and a number

B. the difference of 19 and a number

C. the quotient of 19 and a number

D. the product of 19 and a number

6.) Write a verbal expression for *x + y.*

A. the sum of x and y

B. the quotient of x and y

C. the difference of x and y

D. the product of x and y

7.) Evaluate $4 + 5 \cdot 7 - 1$

A. 139

B. 15

C. 34

D. 38

8.) Evaluate $3(16 - 9) + 12 \div 3$

A. 33

B. 25

C. 41

D. 28

9.) Evaluate $6(8 - 3)$.

A. 45

B. 30

C. 11

D. 66

10.) Evaluate 2k + m if k = 11 and m = 5.

A. 32

B. 216

C. 27

D. 18

11.) Evaluate $13 + 6 + 7 + 4$

A. 2184

B. 29

C. 20

D. 30

12.) Evaluate 7b + 2b + 3c.

A. 12bc

B. 9b + 3c

C. 7b + 5c

D. 5b + 3c

13.) Simplify 5(2g + 3).

A. 10g + 3

B. 7g + 3

C. 10g + 15

D. 7g + 8

14.) Evaluate $4 \cdot 1 + 6 \cdot 16 + 0$

A. 100

B. 0

C. 8

D. 185

15.) A car rental company charges a rental fee of $20 per day in addition to a charge of $0.30 per mile drive. How much does it cost to rent a car for a day and drive it 25 miles?

A. $45.30

B. $20.30

C. $27.50

D. $26.00

16.) Which of the following uses the Distributive Property to determine the product 12(185)?

A. 12(100) + 12(13)

C. 12(18) + 12(5)

D. 12(100) + 12(80)+12(5)

B. 12(1) + 12(8) +12(5)

17.) Simplify 3(5a + b) + 4(a + 2b)

A. 9a + 5b

B. 19a + 3b

C. 19a + 11b

D. 9a + 9b

18.) Evaluate $4\frac{1}{5} + 9 + 2\frac{3}{5}$

A. $15\frac{4}{5}$

B. $15\frac{2}{5}$

C. $17\frac{4}{5}$

D. $17\frac{3}{10}$

Chapter 2

19.) Translate the following sentence into an equation. *Twice a number m, minus three equals the sum of m and five.*

A. $2(m - 3) = m + 5$

B. $2m - 3 = 5m$

C. $2m - 3 = m + 5$

D. $2(m - 3) = 5m$

20.) Solve y − 18 = - 3

A. -21

B. 21

C. -15

D. 15

21.) Solve 5n = 35

A. 30

B. 7

C. 40

D. 165

22.) Solve $\frac{3}{5}x = 15$

A. 9

B. 5

C. 25

D. 75

23.) Solve 2t + 1 = 3

A. 1

B. -1

C. 2

D. -2

24.) Solve $x - 12 = 5$

A. -17   B. -7   C. 17   D. 7

25.) Solve $6z = -84$

A. -90   B. -78   C. -14   D. -504

26.) Solve $\frac{k}{-7} = -28$

A. 4   B. -4   C. 196   D. -196

27.) Solve $2 + 7y = 44$

A. 6   B. 35   C. 49   D. 64

28.) Evaluate $| 2b - 5 | + 1$ if $b = 1$

A. -2   B. 2   C. 4   D. -8

29.) Solve $| c - 5 | = 7$

A. No Solution   B. {-4, 4}   C. {-4, 6}   D. {-2, 12}

30.) Which ratio forms a proportion with $\frac{7}{14}$?

A. $\frac{4}{9}$ B. $\frac{5}{12}$ C. $\frac{2}{5}$ D. $\frac{3}{6}$

31.) Solve the proportion $\frac{2}{7} = \frac{x}{42}$

A. $\frac{1}{2}$ B. 12   C. $\frac{2}{7}$ D. 6

32.) Solve $3t - 6 = t - 2$

A. -2   B. -4   C. 2   D. 1

33.) Solve $4(t + 1) = 6t - 1$

A. $2\frac{1}{2}$ B. 1   C. 0   D. $1\frac{1}{2}$

34.) Solve $5(g - 2) + g = 6(g - 4)$

A. all numbers   B. 0   C. 2   D. no solution

35.) Solve $ax - 5 = b$ for a

A. $x(b + 5)$ B. $\frac{b-5}{x}$ C. $\frac{b+5}{x}$ D. $x(b - 5)$

36.) Find the percent of change.   original: 10   new: 12

A. 12%   B. 25%   C. 20%   D. 18%

37.) A baseball costs $4.00. If the sales tax is 5%, what is the TOTAL PRICE?

A. $3.80   B. $4.20   C. $4.05   D. $4.50

Chapter 3/Chapter 4

38.) What is the **X-INTERCEPT** of y = -3x – 18?

A. (0, 6)   B. (0, -6)   C. (6, 0)   D. (-6, 0)

For question 39-41, find the slope of each line described.

39.) the line through (3, 7) and (-1, 4)

A. 4/3   B. 3/4   C. 11/2   D. 2/11

40.) the line through (-3, 2) and (6, 2)

A. 4/9   B. 4/3   C. 0   D. undefined

41.) a vertical line

A. 1   B. 0   C. -1   D. undefined

42.) What is the slope and the y-intercept of this linear equation **y = -2x + 3**?

A. Slope = 2; y-intercept = -3   B.) Slope = -2; y-intercept = 3

C.) Slope = 3; y-intercept = -2   D.) Slope = -3; y-intercept -2

For problems: 43 – 45, Write the equation in slope intercept form:

43) Slope =4 and the point (-1, -5)

44) 3x-4y=10

45) through the points (-1,0) and (3,-4)

Graph the following and state the slope and the y-intercept:

46) y=-3/4x+1
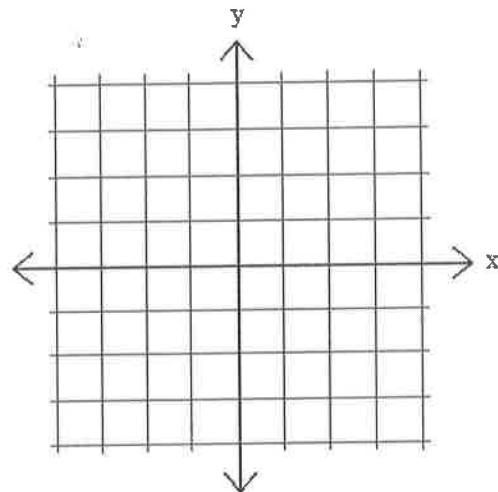
Slope =_____ Y-intercept=_____

47) 2x-3y=6
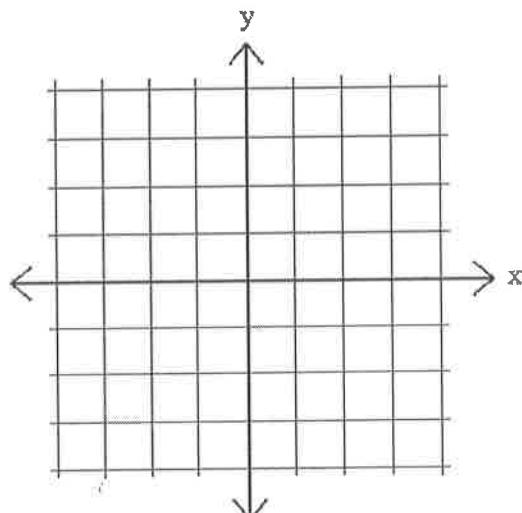
Slope=_____ Y-Intercept=_____

# Chapter 5

Solve each inequality and graph its solution.

48) $-5p + 2p \geq 12$
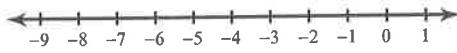
49) $-3(6n + 2) \leq -25 + n$
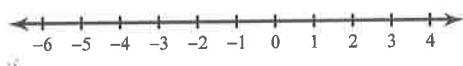

50) $-9(3 - 10k) < 9(-7 + 8k)$
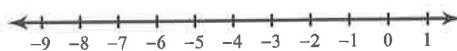
51) $-(8 + 9n) \leq 2(-8n + 3)$
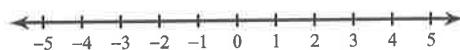

Solve each compound inequality and graph its solution.

52) $\dfrac{m}{2} > 2$ or $m - 3 < -3$
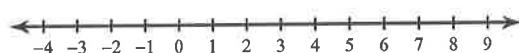
53) $\dfrac{b}{6} > 1$ or $\dfrac{b}{5} < 1$
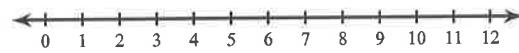
54) $2p - 9 < -17$ or $4 - 4p < -12$
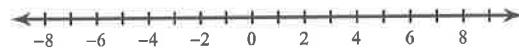
55) $8v - 12 < -28$ and $9v + 11 > 20$
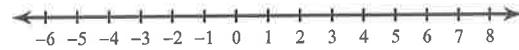
**Sketch the graph of each linear inequality.**

56) $y \geq -\dfrac{4}{5}x - 1$
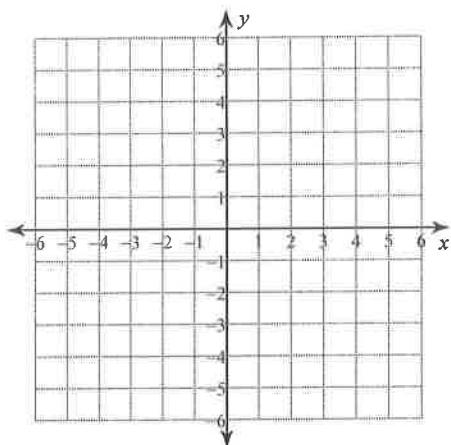
57) $3x - 2y < -6$
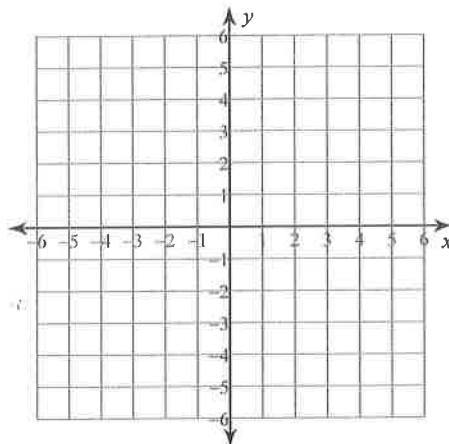
Sketch the solution to each system of inequalities.

58) $x > 2$

$y < \dfrac{3}{2}x - 2$

59) $11x + 7y \leq 35$

$2x + 7y \leq -28$