Algebra 1 Semester Final Review Fall 2015

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. 3x2 – 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 ∙ 7 – 1

A. 139

B. 15

C. 34

D. 38

8.) Evaluate 3(16 – 9) + 12 ÷ 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 ∙ 1 + 6 ∙ 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)

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

C. 12(18) + 12(5)

D. 12(100) + 12(80)+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=\_\_\_\_\_\_\_\_\_\_\_