Algebra Review Summative

Name: _____ Date: _____ Block: _____

1. What value below is equivalent to the expression?

$5 - 2(3 + 9) + 4$

A. -23
B. -15
C. 33
D. 40

2. Brad's scores on three math tests are three consecutive even integers. The sum of his test scores is represented by the expression below, where *m* represents his first test score. Which expression is equivalent to the sum of Brad's test scores?

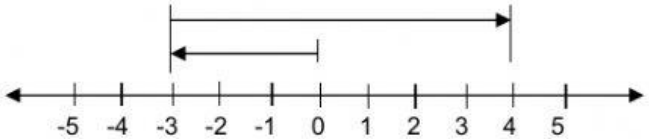
$$(m) + (m + 2) + (m + 4)$$

A. 9m
B. $8m^3$
C. $m^3 + 6$
D. 3m + 6

3. Which of the following equations is an example of the distributive property?

A. $r(s + t) = rs + rt$
B. $a(bc) = (ab)c$
C. $x + (y + z) = (x + y) + z$
D. $b(c + a) = b(d + c)$

4. Sandy used a number line to simplify a numerical expression. Her work is illustrated below. Based on the number line, which expression did Sandy simplify?



A. -3 + 7
B. -3 – 7
C. 4 – 3
D. 7 + 3

5. $-40 - (-53)$

A. -93
B. 93
C. -13
D. 13

6. Evaluate the expression.

(4x + 5) - 6

A. -24x + 30
B. 24x - 30
C. -24x - 30
D. -24x + 5

7. Which decimal is equivalent to $\frac{22}{9}$?

A. $.409$
B. $.\underline{409}$
C. 2.4
D. $2.\underline{4}$

8. Evaluate the expression.

-7(3m - 4) + 2

A. - 21m -2
B. - 21m - 26
C. 21m + 30
D. - 21m + 30

LIVEWORKSHEETS

Algebra Review Summative

Name: _____ Date: _____ Block: _____

9. Identify the GCF and factor it out. Write your answer in factored form

$$5x^2y - 10xy$$

10. What is a number that when you multiply it by 6 and you subtract 4 from the product, you get 50?

a. $7\frac{2}{3}$ c. 14
b. 9 d. 324

11. Which is the solution of the equation?

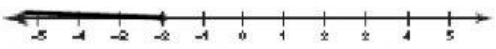
$$5x - 14 = -29$$

a. x = 3 c. x = -3
b. x = 13 d. x = -9.4

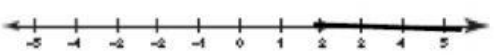
12. Which graph represents the solution to the inequality $3x - 5 \geq -11$? Solve for x.

x = _____

a.


b.


c.


d.


13. What is the solution to the equation?

$$8x - 9 = -41$$

a. x = 4 c. x = -6.25
b. x = -4 d. x = 6.25

14. Which inverse operation would you use to solve the equation?

$$\frac{m}{5} - 8 = -6$$

a. Add 8 to each side and divide each side by 5.
b. Add 8 to each side and multiply each side by 5.
c. Subtract 8 from each side and multiply each side by 5.
d. Multiply each side by 5 and add 8 to each side.

15. What is the solution to the inequality?

$$-7x > 49$$

a. $x < 7$ c. $x < -7$
b. $x > 7$ d. $x > -7$

16. What is the solution to the equation?

$$\mathbf{4x + 12 = 48}$$

a. 9 c. 144
b. 15 d. 240

17. Find all the possible values of x that satisfy the inequality. $\frac{x}{3} - 8 \geq 1$

A. $x \geq -21$
B. $x \geq 3$
C. $x \geq 27$
D. $x \geq 30$

LIVEWORKSHEETS

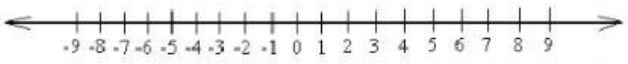
Algebra Review Summative

Name: _____ Date: _____ Block: _____

18. The inequality $4x + 260 \leq 400$ represents the cost to repair Tom's car. The cost of parts is $260 and it will take 4 hours of work. If x represents the labor cost per hour and Tom needs to keep the total $400 or less, what is the highest labor cost per hour that he can afford?

19. The cost for a company to produce shirts is $10,000 plus $2.50 per shirt. The equation $\boldsymbol{C = 2.50x + 10,000}$ is used to calculate the total cost, C, to produce x shirts. If the total cost to produce shirts was $14,967.50, how many shirts did the company produce?

20. What is the solution for x if $3x + 7 \geq -20$? Graph your answer on the number line.



LIVEWORKSHEETS