Algebra 1 (chapter one revision)

Student's Name : ....

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

1. Write an algebraic expression for *nine times of the square of a number*.
   A $9 + x^2$ B $9 - x^2$ C $9x^2$ D $x^2 - 9$

   1. _____

2. Write a verbal expression for $2n + 7$.
   F the product of 2, n, and 7   H 7 less than a number times 2
   G 7 more than twice a number   J 7 more than n and 2

   2. _____

3. Evaluate $6 + 2 \cdot 3 - 1$.
   A 23   B 10   C 16   D 11

   3. _____

4. Evaluate $2(11 - 5) + 9 \div 3$.
   F 18   G 15   H 30   J 11

   4. _____

5. Evaluate $x^2 + xyz$ if $x = 3$, $y = 5$, and $z = 4$.
   A 69   B 63   C 85   D 21

   5. _____

6. Which equation illustrates the Multiplicative Inverse Property?
   F $0 \cdot 16 = 0$ H $3 \cdot \frac{1}{3} = 1$
   G $1(48) = 48$ J $9(1 + 0) = 9(1)$

   6. _____

7. Evaluate $29 \cdot 1 + 2(20 \div 4 - 5)$.
   A 0   B 30   C 29   D 28

   7. _____

8. Simplify $r^2 - 2r^3 + 3r^2$.
   F $4r^2 - 2r^3$ G $2r$ H $3r^2 - 2r^3$ J $4r^2$

   8. _____

9. Simplify $3(2x + 4y - y)$.
   A $5x + 6y$ B $6x + 9y$ C $6x + 3y$ D $5x + 11y$

   9. _____

10. Use the Distributive Property to find $6(14 + 7)$.
    F 91   G 126   H 42   J 56

    10. _____

11. Simplify $2(a + 3b) + 3(4a + b)$.
    A $6a + 6b$ B $14a + 9b$ C $14a + 4b$ D $6a + 7b$
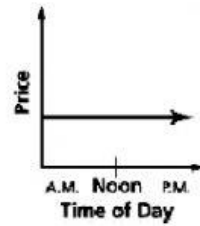
    11. _____

12. Evaluate $3\frac{2}{5} + 7 + 4\frac{1}{5}$.
    F $7\frac{3}{2} + 7$ G $14\frac{3}{10}$ H $84\frac{3}{5}$ J $14\frac{3}{5}$

    12. _____

13. Find Mack's debt-to-income ratio if his monthly expenses are \$2850 and his monthly salary is \$4000.
    A 0.2875   B 0.35   C 0.7125   D 1.45

    13. _____

14. Juanita is buying a cover for her motorcycle which has a length of 7.5 feet. If the covers are only sold in whole foot increments, then what size cover should Juanita buy?
    F 6.5-ft   G 7-ft   H 7.5-ft   J 8-ft

    14. _____

15. Which statement best describes a daily stock price?

    A The price increased.

    B The price decreased.

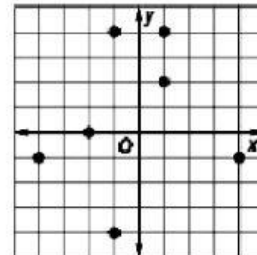   C The price did not change.

    D The price increased then decreased.

15. _____

For Questions 16 and 17, use the graph.

16. What is the domain of the relation?

    F $\{-4, -1, 0, 2, 4\}$ H $\{-4, -2, -1, 0, 1, 2, 4\}$

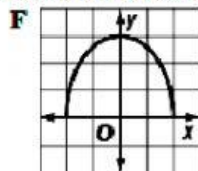   G $\{-4, -2, -1, 1, 4\}$ J $\{-1, 1\}$

16. _____

17. Which is a true statement about the relation?

    A The relation is a linear function.

    B The value of x increases as y decreases.

    C The value of x increases as y increases.
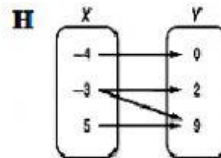
    D The relation is not a function.

17. _____

18. Determine which relation is *not* a function.

F

G

x	y
−2	0
0	0
1	2
3	1

H

J

x	y
−4	0
−3	9
5	2
6	9

18. _____

For Questions 19 and 20, use the graph.

19. Interpret the y-intercept of the graph.

    A 0 bracelets cost about $30.

    B 1 dozen bracelets cost about $30.

    C 28 dozen bracelets cost $0.

    D Each dozen bracelets costs about $5.

Wholesale Bracelets

19. _____

20. Interpret the end behavior of the function.

    F The total cost decreases.

    G The cost per dozen decreases.

    H The total cost increases.

    J The cost per dozen increases.

20. _____

Teacher
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