

**Math 7 Test**

**Name:** \_\_\_\_\_

**SOL 7.13—Verbal & Algebraic Expressions/Equations**

**Write an algebraic expression or equation for the following.**

1. The product of a number,  $n$ , and 15 is 75. \_\_\_\_\_
2. four increased by a number,  $h$  \_\_\_\_\_
3. Forty is the quotient of a number and eight. \_\_\_\_\_
4. fourteen less than  $g$  \_\_\_\_\_
5. A number,  $y$ , decreased by 10 is twelve. \_\_\_\_\_
6. The difference between a number and four is eighteen. \_\_\_\_\_
7. the product of a number,  $n$ , and 5 increased by 17 \_\_\_\_\_
8. Twice the sum of four and a number is twenty-two. \_\_\_\_\_
9. five less than the quotient of twenty and a number,  $y$  \_\_\_\_\_
10. double the sum of a number,  $g$ , and 7 \_\_\_\_\_

**Match the following verbal expressions with the correct algebraic expression.**

- |   |                      |
|---|----------------------|
| _____ 11. a number increased by 6                     | A. $3 + 6n$          |
| _____ 12. three increased by the product of 6 and $n$ | B. $3 - n$           |
| _____ 13. six more than the quotient of 3 and $n$     | C. $n + 6$           |
| _____ 14. three less than a number                    | D. $\frac{3}{n} + 6$ |
| _____ 15. three times a number, decreased by 6        | E. $n - 3$           |
| _____ 16. a number less than 3                        | F. $3n - 6$          |

**Write a verbal expression or equation for the following.**

17.  $x + 18$  \_\_\_\_\_
18.  $\frac{y}{8} = 5$  \_\_\_\_\_
19.  $2(g - 3)$  \_\_\_\_\_
20.  $6k = 15$  \_\_\_\_\_
21.  $x + 9x$  \_\_\_\_\_
22.  $2g - 3$  \_\_\_\_\_

**Write an algebraic expression or equation for each situation.**

23. A group of friends go to dinner. The dinner costs \$64. Write an expression for the cost per person,  $p$ .

\_\_\_\_\_



24. A seventh grade class has been collecting aluminum can for recycling. The class has collected 210 cans. The goal is to collect 520 cans. Write an equation to represent the number of cans,  $c$ , the class needs to collect to reach the goal.



\_\_\_\_\_

25. The yearbook committee can fit one student picture in one inch of a row. If there are eight 6-inch rows on each page, write an expression for the number of pictures that can fit on  $p$  pages.

\_\_\_\_\_

26. Joe's father is 46 years old. He is 8 years older than 3 times Joe's age. Write an equation that could be used to find Joe's age,  $a$ .

\_\_\_\_\_

**Choose the correct answer. Place the letter of your answer choice in the blank.**

- \_\_\_\_\_ 27. Ricky earned \$75 last month mowing lawns. He bought 3 video games that cost \$22 each. Which equation could be used to find  $T$ , the total amount of money Ricky had left after buying the videos?

A.  $T = 75 - (22 \times 3)$

B.  $T = (75 - 22) \times 3$

C.  $T = 75 - (22 + 3)$

D.  $T = (75 \times 3) - (22 \times 3)$

- \_\_\_\_\_ 28. The movie theatre was set up with 12 rows of chairs. Each row had 14 chairs. In addition, there were 7 chairs set up on the front row. Which expression can be used to find how many chairs there are in all?

A.  $(14 + 12) + 9$

B.  $(12 \times 14) + 7$

C.  $(14 \times 12) + (16 \times 7)$

D.  $(14 \times 12) + 9$

- \_\_\_\_\_ 29. Jamie wanted to bake desserts to sell at the cheerleader bake sale. She bought 4 cake mixes that cost \$1.39 each and 3 containers of icing that cost \$2.35 each. Which equation could be used to find  $c$ , the total cost of the items purchased?

A.  $c = 4 + 1.39 + 3 + 2.35$

B.  $c = (1.30 \times 3) + (2.35 \times 4)$

C.  $c = (1.39 \times 4) + (2.35 \times 3)$

D.  $c = (1.39 + 2.35) \times (4 + 3)$

- \_\_\_\_\_ 30. Paul takes 12 minutes to mow a lawn. Which equation could be used to find how many minutes,  $x$ , it would take him to mow 63 lawns?

A.  $\frac{63}{x} = 12$

B.  $x = 12 \cdot 63$

C.  $12x = 63$

D.  $\frac{12}{x} = 63$

**Math 7.13—Verbal & Algebraic Expressions/Equations**  
**Answer Key**

1.  $n \times 15 = 75$
2.  $4 + h$
3.  $40 = n \div 8$
4.  $g - 14$
5.  $y - 10 = 12$
6.  $n - 4 = 18$
7.  $5n + 17$
8.  $2(4 + n) = 22$
9.  $20 \div y - 5$
10.  $2(g + 7)$
11. C
12. A
13. D
14. E
15. F
16. B
17. Answers may vary
18. Answers may vary
19. Answers may vary
20. Answers may vary
21. Answers may vary
22. Answers may vary
23.  $64 \div p$
24.  $210 + c = 520$
25.  $6 \times 8 \times p$
26.  $3a + 8 = 46$
27. A
28. B
29. C
30. B