

Test, Form 1A

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

1. The volume of a certain cube can be found using the expression 5^3 .
What is 5^3 written as a product of the same factor?

A. 5×3 C. 3×5
B. $3 \times 3 \times 3 \times 3 \times 3$ D. $5 \times 5 \times 5$

1. D

2. What is $8 \times 8 \times 8 \times 8$ written using an exponent?

F. 8^4 G. 4^8 H. 8×4 I. 4,096

2. F

What is the value of each expression?

3. $52 + 7$

A. 12 B. 32 C. 42 D. 59

3. D

4. $21 - 3^2 + 2$

F. 14 G. 16 H. 20 I. 24

4. F

5. $5^3 - 2 \times 3 + 1$

A. 50 B. 53 C. 169 D. 120

5. D

6. $4 \times 3 + 9 \times 8$

F. 59 G. 84 H. 168 I. 384

6. G

7. What is the value of cd if $c = 9$ and $d = 8$?

A. 98 B. 89 C. 72 D. 17

7. C

8. What is the value of $2 + 3n$ if $n = \frac{1}{2}$?

F. $1\frac{1}{2}$ G. $3\frac{1}{2}$ H. $5\frac{1}{2}$ I. 8

8. G

9. What is the value of $s + t - u$ if $s = 12$, $t = 8$, and $u = 20$?

A. 0 B. 10 C. 15 D. 18

9. A

Which is the correct algebraic expression for each phrase?

10. 10 dollars less than Caitlin

F. $c + 10$ G. $c - 10$ H. $10 - c$ I. $10c$

10. G

11. 13 times the cost of one ticket

A. $t \div 13$ B. $t - 13$ C. $13 + t$ D. $13t$

11. D

12. twelve inches longer than the width

F. $12w$ G. $12 - w$ H. $w + 12$ I. $12 \div w$

12. H

Test, Form 1A *(continued)*

SCORE _____

13. Which property is illustrated by the statement $3 + 0 = 3$?
 A. Associative C. Distributive
 B. Commutative D. Identity 13. D
14. Which property is illustrated by the statement $6 \cdot 4 = 4 \cdot 6$?
 F. Associative H. Distributive
 G. Commutative I. Identity 14. G
15. Which of the following is equivalent to $2 \cdot (4 \cdot 3)$?
 A. $2 + (4 + 3)$ B. $2 \cdot (6 \cdot 4)$ C. $(2 \cdot 4) \cdot 3$ D. 8 15. C
16. Which of the following is the factored form of the expression $18 + 12$?
 F. $2(9 + 6)$ G. $3(6 + 4)$ H. $6(3 + 2)$ I. $9(2 + 3)$ 16. H
17. Which shows how to find 5×83 mentally by using the Distributive Property?
 A. $3(5 + 80)$ B. $5(80) + 3$ C. $3(80) + 5(3)$ D. $5(80) + 5(3)$ 17. D

Which expression results from using the Distributive Property?

18. $6(x + 4)$
 F. $6x + 10$ G. $6x + 4$ H. $24x$ I. $6x + 24$ 18. I
19. $2(5 + r)$
 A. $7 + r$ B. $10 + 2r$ C. $12r$ D. $7 + 2r$ 19. B
20. $11(n + 3)$
 F. $14n$ G. $n + 33$ H. $33n$ I. $11n + 33$ 20. I

What is the simplified form of each expression?

21. $2x + 5x + 4x$
 A. $11 + 3x$ B. $7x$ C. $11x$ D. $7x + 4x$ 21. C
22. $5(4x)$
 F. $9x$ G. $5(4) + 5(x)$ H. $9 + x$ I. $20x$ 22. I
23. $7(2x + 6y)$
 A. $14x + 42y$ B. $56x$ C. $56xy$ D. $14x + 42$ 23. A

What is the factored form of each expression?

24. $20x + 35y$
 F. $4x + 7y$ G. $5xy(4 + 7)$ H. $5(4x + 7y)$ I. $(20 + 35) \cdot (x + y)$ 24. H
25. $24x + 64y$
 A. $4(6x + 16y)$ B. $8(3x + 8y)$ C. $8xy(3 + 8)$ D. $3x + 8y$ 25. B