

# Ch. 6 EXPRESSIONS REVIEW

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

1. \_\_\_\_\_

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

- F.  $8^4$                       G.  $4^8$                       H.  $8 \times 4$                       I. 4,096

2. \_\_\_\_\_

What is the value of each expression?

3.  $5^8 - 2 \times 3 + 1$

- A. 50                      B. 53                      C. 169                      D. 224

3. \_\_\_\_\_

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

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

4. \_\_\_\_\_

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

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

5. \_\_\_\_\_

Which is the correct algebraic expression for each phrase?

6. 10 dollars less than Caitlin

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

6. \_\_\_\_\_

7. 13 times the cost of one ticket

- A.  $t : 13$                       B.  $t - 13$                       C.  $13 + t$                       D.  $13t$

7. \_\_\_\_\_

8. Which property is illustrated by the statement  $3 + 0 = 3$ ?

- A. Associative                                      C. Distributive  
B. Commutative                                      D. Identity

8. \_\_\_\_\_

9. Which property is illustrated by the statement  $6 \cdot 4 = 4 \cdot 6$ ?

- F. Associative                                      H. Distributive  
G. Commutative                                      I. Identity

9. \_\_\_\_\_

10. Which shows how to find  $5 \times 83$  mentally by using the Distributive Property?  
A.  $3(5 + 80)$     B.  $5(80) + 3$     C.  $3(80) + 5(3)$     D.  $5(80) + 5(3)$     10. \_\_\_\_\_

**Which expression results from using the Distributive Property?**

11.  $6(x + 4)$   
F.  $6x + 10$     G.  $6x + 4$     H.  $24x$     I.  $6x + 24$     11. \_\_\_\_\_

**What is the simplified form of each expression?**

12.  $2x + 5x + 4x$   
A.  $11 + 3x$     B.  $7x$     C.  $11x$     D.  $7x + 4x$     12. \_\_\_\_\_

13.  $7(2x + 6y)$   
A.  $14x + 42y$     B.  $56x$     C.  $56xy$     D.  $14x + 42$     13. \_\_\_\_\_

**What is the factored form of each expression?**

14.  $20x + 35y$   
F.  $4x + 7y$     G.  $5xy(4 + 7)$     H.  $5(4x + 7y)$     I.  $(20 + 35) \cdot (x + y)$     14. \_\_\_\_\_

15.  $24x + 64y$   
A.  $4(6x + 16y)$     B.  $8(3x + 8y)$     C.  $8xy(3 + 8)$     D.  $3x + 8y$     15. \_\_\_\_\_

16. Write an expression that, when simplified, is equivalent to  $12x + 8$ .    16. \_\_\_\_\_

17. Seven friends have similar cell phone plans. The price of each plan is  $x$ .  
Three of the seven friends pay an extra \$4 per month for unlimited text messaging.  
Write and simplify an expression that represents the total cost of the seven plans.

17. \_\_\_\_\_