

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

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Working with the Properties of Mathematics

- 1 ) Which equation shows the Identity Property of Multiplication ?
- A.  $a(b + c) = ab + ac$  \_\_\_\_\_
- B.  $a \times 1$  \_\_\_\_\_
- C.  $a + a + a = 3 \times a$  \_\_\_\_\_
- D.  $(a + b) + 5 = a + (5 + b)$  \_\_\_\_\_
- 2 ) Which property of addition is used in the following ?  $(7 + 8) + 3 = 7 + (8 + 3)$
- A. Distributive Property \_\_\_\_\_
- B. Associative Property \_\_\_\_\_
- C. Identity Property \_\_\_\_\_
- D. Commutative Property \_\_\_\_\_
- 3 ) Which Property of Multiplication is shown ?  $(2 + 4) \times 8 = 2 \times 8 + 4 \times 8$
- A. Commutative Property \_\_\_\_\_
- B. Distributive Property \_\_\_\_\_
- C. Associative Property \_\_\_\_\_
- D. Identity Property \_\_\_\_\_
- 4 ) Which property would you use to simplify the following expression ?  $4(y + 6)$
- A. Associative Property \_\_\_\_\_
- B. Commutative Property \_\_\_\_\_
- C. Distributive Property \_\_\_\_\_
- D. Multiplication Property of Zero \_\_\_\_\_
- 5 ) Which of the following does not show the Commutative Property ?
- A.  $yx = xy$  \_\_\_\_\_
- B.  $x + y = y + x$  \_\_\_\_\_
- C.  $xy - 3 = xy$  \_\_\_\_\_
- D.  $9 + y = y + 9$  \_\_\_\_\_
- 6 ) Which of the following does not show the Commutative Property of Addition ?
- A.  $a + b = b + a$  \_\_\_\_\_
- B.  $3x + 4y = 4y + 3x$  \_\_\_\_\_
- C.  $3 + x = x + 3$  \_\_\_\_\_
- D.  $ab = ba$  \_\_\_\_\_
- 7 ) Which Property of Addition does  $3 + 0 = 3$  illustrate ?
- A. Identity Property \_\_\_\_\_
- B. Commutative Property \_\_\_\_\_
- C. Zero Property \_\_\_\_\_
- D. Distributive Property \_\_\_\_\_
- 8 ) The value of any nonzero number will be changed by \_\_\_\_\_ .
- A. dividing by one \_\_\_\_\_
- B. multiplying by one \_\_\_\_\_
- C. multiplying by zero \_\_\_\_\_
- D. adding zero \_\_\_\_\_
- 9 ) Which property is used in the following ?  $2 \times (5 + 6) = 2 \times 5 + 2 \times 6$
- A. Distributive Property \_\_\_\_\_
- B. Associative Property \_\_\_\_\_
- C. None of the above \_\_\_\_\_
- D. Commutative Property \_\_\_\_\_
- 10 ) Simplify this expression :  $3(y + z)$
- A.  $3y + 3z$  \_\_\_\_\_
- B.  $3z + y$  \_\_\_\_\_
- C.  $3y + z$  \_\_\_\_\_
- D.  $3yz$  \_\_\_\_\_



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## Working with the Properties of Mathematics

- 11 ) Which property is used in the following expression ?  $(6 \times 4) \times 9 = 4 \times (9 \times 6)$
- A. Associative Property of Multiplication      B. Distributive Property of Multiplication \_\_\_\_\_  
C. Commutative Property of Addition      D. Associative Property of Addition \_\_\_\_\_
- 12 ) Which is an example of Identity Property of Addition ?
- A.  $3 + 0 = 3$       B.  $6 \times 1 = 6$  \_\_\_\_\_  
C.  $(9 + 4) + 2 = 9 + (4 + 2)$       D.  $5 + 9 = 9 + 5$  \_\_\_\_\_
- 13 ) Which operation will not change the value of any nonzero number ?
- A. Multiplying by Zero      B. Adding One \_\_\_\_\_  
C. Dividing by Zero      D. Multiplying by One \_\_\_\_\_
- 14 ) Which is an example of Associative Property of Addition ?
- A.  $(4 + 7) + 9 = 4 + (7 + 9)$       B.  $5 + 0 = 5$  \_\_\_\_\_  
C.  $2 + 4 = 4 + 2$       D.  $8 + (-8) = 0$  \_\_\_\_\_
- 15 ) Which equation shows the Zero Property of Multiplication ?
- A.  $7 \times 6 = 6 \times 7$       B.  $3 \times 1 = 3$  \_\_\_\_\_  
C.  $9 \times 0 = 0$       D.  $4 + 4 + 4 = 3 \times 4$  \_\_\_\_\_
- 16 ) Which equation shows the Commutative Property of Multiplication ?
- A.  $5 \times 1 = 5$       B.  $2 \times 7 - 3 \times 7 = (2 - 3) \times 4$  \_\_\_\_\_  
C.  $9 \times 8 = 8 \times 9$       D.  $4 \times 3 = 4 + 4 + 4$  \_\_\_\_\_
- 17 ) Which property is used in the following expression ?  $5(8 + 2) = 40 + 10$
- A. Commutative Property of Addition      B. Associative Property of Multiplication \_\_\_\_\_  
C. Associative Property of Addition      D. Distributive Property \_\_\_\_\_
- 18 ) Which property is used in the following expression ?  $(a \times b) \times c = a \times (b \times c)$
- A. Distributive Property      B. Commutative Property of Addition \_\_\_\_\_  
C. Associative Property of Multiplication      D. Associative Property of Addition \_\_\_\_\_
- 19 ) Which of the following is an example of Commutative Property of Addition ?
- A.  $6 \times 1 = 6$       B.  $(2 + 3) + 7 = 2 + (3 + 7)$  \_\_\_\_\_  
C.  $8 + 2 = 2 + 8$       D.  $4 + 5 = 9 + 4$  \_\_\_\_\_

