



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

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

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

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

## Working with the Properties of Mathematics

- 11 ) Which property would you use to simplify the following expression ?  $9(y + 3)$
- A. Commutative Property  
B. Distributive Property \_\_\_\_\_  
C. Associative Property  
D. Multiplication Property of Zero
- 12 ) 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 Addition  
D. Associative Property of Multiplication
- 13 ) Which Property of Multiplication is shown ?  $(4 + 3) \times 9 = 4 \times 9 + 3 \times 9$
- A. Associative Property  
B. Commutative Property \_\_\_\_\_  
C. Identity Property  
D. Distributive Property
- 14 ) Which property is used in the following expression ?  $5(8 + 4) = 40 + 20$
- A. Associative Property of Multiplication  
B. Commutative Property of Addition \_\_\_\_\_  
C. Distributive Property  
D. Associative Property of Addition
- 15 ) Which of the following does not show the Commutative Property of Addition ?
- A.  $ab = ba$   
B.  $a + b = b + a$  \_\_\_\_\_  
C.  $3 + x = x + 3$   
D.  $3x + 4y = 4y + 3x$
- 16 ) Which property is used in the following expression ?  $(6 \times 3) \times 9 = 3 \times (9 \times 6)$
- A. Commutative Property of Addition  
B. Associative Property of Addition \_\_\_\_\_  
C. Distributive Property of Multiplication  
D. Associative Property of Multiplication
- 17 ) Which property is used in the following ?  $3 \times (6 + 5) = 3 \times 6 + 3 \times 5$
- A. Distributive Property  
B. None of the above \_\_\_\_\_  
C. Commutative Property  
D. Associative Property



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- 1 ) Which equation shows the Identity Property of Multiplication ?
- A.  $a + a + a = 3 \times a$                       B.  $a(b + c) = ab + ac$                       C
- C.  $a \times 1$                                       D.  $(a + b) + 5 = a + (5 + b)$
- 2 ) Which of the following does not show the Commutative Property ?
- A.  $6 + y = y + 6$                       B.  $yx = xy$                       D
- C.  $x + y = y + x$                       D.  $xy - 2 = xy$
- 3 ) Which is an example of Associative Property of Addition ?
- A.  $8 + (-8) = 0$                       B.  $2 + 0 = 2$                       D
- C.  $4 + 6 = 6 + 4$                       D.  $(6 + 5) + 3 = 6 + (5 + 3)$
- 4 ) Which equation shows the Commutative Property of Multiplication ?
- A.  $5 \times 1 = 5$                               B.  $8 \times 6 = 6 \times 8$                       B
- C.  $2 \times 9 - 3 \times 9 = (2 - 3) \times 9$                       D.  $7 \times 3 = 7 + 7 + 7$
- 5 ) Which is an example of Identity Property of Addition ?
- A.  $8 \times 1 = 8$                               B.  $9 + 7 = 7 + 9$                       D
- C.  $(7 + 3) + 2 = 7 + (3 + 2)$                       D.  $5 + 0 = 5$
- 6 ) Simplify this expression :  $7(y + z)$
- A.  $7yz$                                       B.  $7y + z$                       C
- C.  $7y + 7z$                               D.  $7z + y$
- 7 ) Which Property of Addition does  $7 + 0 = 7$  illustrate ?
- A. Distributive Property                      B. Zero Property                      D
- C. Commutative Property                      D. Identity Property
- 8 ) Which of the following is an example of Commutative Property of Addition ?
- A.  $7 + 9 = 9 + 7$                       B.  $3 + 4 = 8 + 3$                       A
- C.  $(9 + 6) + 2 = 9 + (6 + 2)$                       D.  $5 \times 1 = 5$
- 9 ) Which operation will not change the value of any nonzero number ?
- A. Multiplying by Zero                      B. Adding One                      D
- C. Dividing by Zero                      D. Multiplying by One
- 10 ) Which property of addition is used in the following ?  $(9 + 2) + 8 = 9 + (2 + 8)$
- A. Commutative Property                      B. Identity Property                      C
- C. Associative Property                      D. Distributive Property



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## Working with the Properties of Mathematics

- 11 ) Which property would you use to simplify the following expression ?  $9(y + 3)$
- |                         |                                    |          |
|-------------------------|------------------------------------|----------|
| A. Commutative Property | B. Distributive Property           | <u>B</u> |
| C. Associative Property | D. Multiplication Property of Zero |          |
- 12 ) 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       | <u>D</u> |
| C. Associative Property of Addition | D. Associative Property of Multiplication |          |
- 13 ) Which Property of Multiplication is shown ?  $(4 + 3) \times 9 = 4 \times 9 + 3 \times 9$
- |                         |                          |          |
|-------------------------|--------------------------|----------|
| A. Associative Property | B. Commutative Property  | <u>D</u> |
| C. Identity Property    | D. Distributive Property |          |
- 14 ) Which property is used in the following expression ?  $5(8 + 4) = 40 + 20$
- |                                           |                                     |          |
|-------------------------------------------|-------------------------------------|----------|
| A. Associative Property of Multiplication | B. Commutative Property of Addition | <u>C</u> |
| C. Distributive Property                  | D. Associative Property of Addition |          |
- 15 ) Which of the following does not show the Commutative Property of Addition ?
- |                    |                        |          |
|--------------------|------------------------|----------|
| A. $ab = ba$       | B. $a + b = b + a$     | <u>A</u> |
| C. $3 + x = x + 3$ | D. $3x + 4y = 4y + 3x$ |          |
- 16 ) Which property is used in the following expression ?  $(6 \times 3) \times 9 = 3 \times (9 \times 6)$
- |                                            |                                           |          |
|--------------------------------------------|-------------------------------------------|----------|
| A. Commutative Property of Addition        | B. Associative Property of Addition       | <u>D</u> |
| C. Distributive Property of Multiplication | D. Associative Property of Multiplication |          |
- 17 ) Which property is used in the following ?  $3 \times (6 + 5) = 3 \times 6 + 3 \times 5$
- |                          |                         |          |
|--------------------------|-------------------------|----------|
| A. Distributive Property | B. None of the above    | <u>A</u> |
| C. Commutative Property  | D. Associative Property |          |

