Name :	 Score :	
Teacher :	 Date:	

## **Working with the Properties of Mathematics**

1) Which is an example of Identity Property of Addition
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**A.** 
$$2 + 9 = 9 + 2$$

**B.** 
$$(9+6)+5=9+(6+5)$$

**C.** 
$$8 \times 1 = 8$$

**D.** 
$$7 + 0 = 7$$

$$A. yx = xy$$

**B.** 
$$x + y = y + x$$

**C.** 
$$xy - 6 = xy$$

**D.** 
$$3 + y = y + 3$$

4) Which property would you use to simplify the following expression? 
$$7(y + 9)$$

**A.** 
$$9 \times 3 = 9 + 9 + 9$$

**B.** 
$$3 \times 1 = 3$$

**C.** 
$$4 \times 8 = 8 \times 4$$

**D.** 
$$2 \times 5 - 6 \times 5 = (2 - 6) \times 9$$

$$(7+8)+4=7+(8+4)$$

**A.** 
$$(5+7)+8=5+(7+8)$$

**B.** 
$$2+5=5+2$$

**C.** 
$$9 + (-9) = 0$$

**D.** 
$$6 + 0 = 6$$

**A.** 
$$3x + 4y = 4y + 3x$$

**B.** 
$$a + b = b + a$$

$$\mathbf{C}$$
.  $ab = ba$ 

**D.** 
$$6 + x = x + 6$$

$$(a \times b) \times c = a \times (b \times c)$$

10 ) Simplify this expression : 
$$5(y + z)$$

**A.** 
$$5y + 5z$$

**B.** 
$$5z + y$$

**C.** 
$$5v + z$$





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## **Working with the Properties of Mathematics**

11) Which property is used in the following expression? $(7 \times 2) \times 6 = 2 \times 6 $	: 2 x (6 x	x 6 =	$(7 \times 2) \times$	? (7	expression '	following	in the	s used	property is	Which	11 )
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12) Which property is used in the following? 
$$5 \times (9+6) = 5 \times 9 + 5 \times 6$$

**A.** 
$$a(b + c) = ab + ac$$
 **B.**  $a \times 1$ 

**C.** 
$$a + a + a = 3 \times a$$
 **D.**  $(a + b) + 3 = a + (3 + b)$ 

14) Which Property of Addition does 
$$4 + 0 = 4$$
 illustrate?

**A.** 
$$5 \times 1 = 5$$
 **B.**  $(3 + 9) + 2 = 3 + (9 + 2)$ 

**C.** 
$$4+3=3+4$$
 **D.**  $7+6=8+7$ 

16 ) Which Property of Multiplication is shown? 
$$(4 + 9) \times 6 = 4 \times 6 + 9 \times 6$$

17) Which property is used in the following expression? 
$$3(8 + 4) = 24 + 12$$



Name : Teacher :	Score : Date :				
Working with the Properties of Mathematics					
) Which is an example of Identity Property of Add	ition?	_			
<b>A.</b> 2 + 9 = 9 + 2	<b>B.</b> $(9+6)+5=9+(6+5)$	<u>D</u>			
<b>C.</b> $8 \times 1 = 8$	<b>D.</b> $7 + 0 = 7$				
) Which operation will not change the value of any		_			
A. Dividing by Zero	B. Multiplying by One	B			
C. Adding One	<b>D.</b> Multiplying by Zero				
) Which of the following does not show the Comm	nutative Property ?				
$\mathbf{A.}  \mathbf{y}\mathbf{x} = \mathbf{x}\mathbf{y}$	<b>B.</b> $x + y = y + x$	<u>C</u>			
<b>C.</b> $xy - 6 = xy$	<b>D.</b> $3 + y = y + 3$				
) Which property would you use to simplify the fol	llowing expression? 7(y + 9)				
A. Distributive Property	B. Commutative Property	A			
C. Associative Property	<b>D.</b> Multiplication Property of Zero				
) Which equation shows the Commutative Proper	ty of Multiplication ?				
<b>A.</b> $9 \times 3 = 9 + 9 + 9$	<b>B.</b> $3 \times 1 = 3$	C			
<b>C.</b> $4 \times 8 = 8 \times 4$	<b>D.</b> $2 \times 5 - 6 \times 5 = (2 - 6) \times 9$				
) Which property of addition is used in the following	ng? (7+8)+4=7+(8+4)				
A. Commutative Property	B. Distributive Property	C			
C. Associative Property	D. Identity Property				
) Which is an example of Associative Property of	Addition ?				
<b>A.</b> $(5+7)+8=5+(7+8)$	<b>B.</b> 2 + 5 = 5 + 2	A			
<b>C.</b> $9 + (-9) = 0$	<b>D.</b> $6 + 0 = 6$				
) Which of the following does not show the Comm	nutative Property of Addition ?				
<b>A.</b> $3x + 4y = 4y + 3x$	<b>B.</b> a + b = b + a	C			
<b>C.</b> ab = ba	<b>D.</b> $6 + x = x + 6$	_			

) Which property is used in the following expression?

$$(a \times b) \times c = a \times (b \times c)$$

A. Commutative Property of Addition

D

C. Distributive Property

10 ) Simplify this expression : 5(y + z)

**A.** 
$$5y + 5z$$

2

3

5

6

7



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## **Working with the Properties of Mathematics**

- 11 ) Which property is used in the following expression?  $(7 \times 2) \times 6 = 2 \times (6 \times 7)$ 
  - A. Distributive Property of Multiplication **B.** Associative Property of Addition
  - **C.** Commutative Property of Addition D. Associative Property of Multiplication
- 12 ) Which property is used in the following?  $5 \times (9 + 6) = 5 \times 9 + 5 \times 6$ 
  - **A.** Distributive Property **B.** None of the above
  - **C.** Commutative Property **D.** Associative Property
- 13 ) Which equation shows the Identity Property of Multiplication?
  - **A.** a(b + c) = ab + ac**B.** a x 1
  - **C.**  $a + a + a = 3 \times a$ **D.** (a + b) + 3 = a + (3 + b)
- 14 ) Which Property of Addition does 4 + 0 = 4 illustrate?

**A.** Commutative Property

- A. Zero Property **B.** Commutative Property
- **C.** Distributive Property **D.** Identity Property
- 15) Which of the following is an example of Commutative Property of Addition?
  - **A.**  $5 \times 1 = 5$ **B.** (3+9)+2=3+(9+2)
  - **C.** 4 + 3 = 3 + 4**D.** 7 + 6 = 8 + 7
- 16 ) Which Property of Multiplication is shown?  $(4 + 9) \times 6 = 4 \times 6 + 9 \times 6$ 
  - C. Distributive Property **D.** Associative Property
- 17 ) Which property is used in the following expression? 3(8 + 4) = 24 + 12
- - C A. Commutative Property of Addition **B.** Associative Property of Addition

**B.** Identity Property

C. Distributive Property **D.** Associative Property of Multiplication



D

Α

В

D

С

С