

Name : _____

Score : _____

Teacher : _____

Date : _____

Working with the Properties of Mathematics

- 1) Which property is used in the following expression ? $(a \times b) \times c = a \times (b \times c)$
- A. Associative Property of Multiplication B. Distributive Property _____
- C. Commutative Property of Addition D. Associative Property of Addition _____
- 2) Which Property of Addition does $2 + 0 = 2$ illustrate ?
- A. Distributive Property B. Commutative Property _____
- C. Zero Property D. Identity Property _____
- 3) The value of any nonzero number will be changed by _____ .
- A. dividing by one B. multiplying by zero _____
- C. adding zero D. multiplying by one _____
- 4) Which is an example of Identity Property of Addition ?
- A. $7 + 2 = 2 + 7$ B. $5 + 0 = 5$ _____
- C. $6 \times 1 = 6$ D. $(2 + 4) + 8 = 2 + (4 + 8)$ _____
- 5) Which equation shows the Multiplicative Inverse of a Number ?
- A. $a + -a = 0$ B. $a \times (1/a) = 1$ _____
- C. $a \times 0 = 0$ D. $a \times 1 = a$ _____
- 6) Which of the following is an example of Commutative Property of Addition ?
- A. $8 + 7 = 7 + 8$ B. $9 \times 1 = 9$ _____
- C. $5 + 4 = 6 + 5$ D. $(7 + 2) + 3 = 7 + (2 + 3)$ _____
- 7) Which property is used in the following expression ? $6(9 + 8) = 54 + 48$
- A. Commutative Property of Addition B. Associative Property of Multiplication _____
- C. Associative Property of Addition D. Distributive Property _____
- 8) Which property would you use to simplify the following expression ? $9(y + 7)$
- A. Multiplication Property of Zero B. Associative Property _____
- C. Commutative Property D. Distributive Property _____
- 9) Which equation shows the Zero Property of Multiplication ?
- A. $3 \times 1 = 3$ B. $5 \times 0 = 0$ _____
- C. $8 \times 9 = 9 \times 8$ D. $4 + 4 + 4 = 3 \times 4$ _____
- 10) Which property of addition is used in the following ? $(7 + 8) + 9 = 7 + (8 + 9)$
- A. Commutative Property B. Associative Property _____
- C. Distributive Property D. Identity Property _____



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11) Which equation shows the Additive Inverse of a Number ?

A. $a \times 0 = 0$

B. $a + 0 = a$

C. $a + a = 2a$

D. $a + -a = 0$

12) Which Property of Multiplication is shown ? $(2 + 7) \times 3 = 2 \times 3 + 7 \times 3$

A. Identity Property

B. Commutative Property

C. Distributive Property

D. Associative Property

13) Which property is represented in the following statement ? If $a = b$ and $b = c$, then $a = c$.

A. Symmetric Property of Equality

B. Property of Equality for Addition

C. Reflexive Property of Equality

D. Transitive Property of Equality

14) Which of the following does not show the Commutative Property ?

A. $4 + y = y + 4$

B. $xy - 6 = xy$

C. $x + y = y + x$

D. $yx = xy$

15) Which is an example of Associative Property of Addition ?

A. $7 + 0 = 7$

B. $3 + 5 = 5 + 3$

C. $6 + (-6) = 0$

D. $(5 + 9) + 4 = 5 + (9 + 4)$

16) Which operation will not change the value of any nonzero number ?

A. Adding One

B. Multiplying by Zero

C. Dividing by Zero

D. Multiplying by One

17) Which of the following does not show the Commutative Property of Addition ?

A. $3 + x = x + 3$

B. $a + b = b + a$

C. $ab = ba$

D. $3x + 4y = 4y + 3x$

18) Which property is represented in the following statement ? If $a = b$, then $b = a$.

A. Symmetric Property of Equality

B. Transitive Property of Equality

C. Reflexive Property of Equality

D. Property of Equality for Subtraction

19) Which property is used in the following ? $4 \times (2 + 3) = 4 \times 2 + 4 \times 3$

A. Associative Property

B. Commutative Property

C. Distributive Property

D. None of the above

20) Which property is used in the following expression ? $(4 \times 2) \times 5 = 2 \times (5 \times 4)$

A. Associative Property of Addition

B. Distributive Property of Multiplication

C. Commutative Property of Addition

D. Associative Property of Multiplication



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21) Which equation shows the Identity Property of Multiplication ?

A. $(a + b) + 7 = a + (7 + b)$

B. $a + a + a = 3 \times a$

C. $a(b + c) = ab + ac$

D. $a \times 1$

22) Which equation shows the Commutative Property of Multiplication ?

A. $8 \times 6 = 6 \times 8$

B. $5 \times 9 - 3 \times 9 = (5 - 3) \times 4$

C. $7 \times 1 = 7$

D. $4 \times 3 = 4 + 4 + 4$

23) Which equation shows the Addition Property of Zero ?

A. $a \times 0 = 0$

B. $a + 0 = a$

C. $a(b + c) = ab + ac$

D. $(a + b) + 7 = a + (7 + b)$

24) Simplify this expression : $8(y + z)$

A. $8y + 8z$

B. $8y + z$

C. $8z + y$

D. $8yz$

25) Which operation will not change the value of any nonzero number ?

A. Dividing by Zero

B. Multiplying by Zero

C. Adding One

D. Adding Zero

26) Which property is represented in the following statement ? If $a = a$: anything is congruent to itself.

A. Symmetric Property of Equality

B. Property of Equality for Division

C. Reflexive Property of Equality

D. Transitive Property of Equality

