

Name : _____

Score : _____

Teacher : _____

Date : _____

Identify the Properties of Mathematics

- 1) The sum of any number and zero is the original number. For example $a + 0 = a$. _____
- 2) When two numbers are added, the sum is the same regardless of the order of the addends. For example $a + b = b + a$ _____
- 3) When two numbers are added, the sum is the same regardless of the order of the addends. For example $a + b = b + a$ _____
- 4) Adding 0 to any number leaves it unchanged. For example $a + 0 = a$. _____
- 5) When two numbers are multiplied together, the product is the same regardless of the order of the multiplicands. For example $a \times b = b \times a$ _____
- 6) When two numbers are multiplied together, the product is the same regardless of the order of the multiplicands. For example $a \times b = b \times a$ _____
- 7) When three or more numbers are multiplied, the product is the same regardless of the order of the multiplicands. For example $(a \times b) \times c = a \times (b \times c)$ _____
- 8) The additive inverse of a number, a is $-a$ so that $a + -a = 0$. _____
- 9) Adding 0 to any number leaves it unchanged. For example $a + 0 = a$. _____
- 10) The multiplicative inverse of a number, a is $\frac{1}{a}$ so that $a \times \frac{1}{a} = 1$. _____
- 11) The additive inverse of a number, a is $-a$ so that $a + -a = 0$. _____
- 12) When three or more numbers are multiplied, the product is the same regardless of the order of the multiplicands. For example $(a \times b) \times c = a \times (b \times c)$ _____



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Identify the Property

Find the property used in each question.

1) $9 \times (5 + 3) = 9 \times 5 + 9 \times 3$ Property: _____ _____	2) $8 + (-8) = 0$ Property: _____ _____
3) $7 + 3 = 3 + 7$ Property: _____ _____	4) $10 \times (6 \times 2) = (10 \times 6) \times 2$ Property: _____ _____
5) $5 \times 12 = 12 \times 5$ Property: _____ _____	6) $11 \times 1 = 11$ Property: _____ _____
7) $(6 + 3) + 14 = 6 + (3 + 14)$ Property: _____ _____	8) $\frac{1}{2} \times 2 = 1$ Property: _____ _____
9) $(8 \times 12) \times 3 = 8 \times (12 \times 3)$ Property: _____ _____	10) $15 + 0 = 15$ Property: _____ _____
11) $11 + (-11) = 0$ Property: _____ _____	12) $9 + 7 + 6 = 9 + 6 + 7$ Property: _____ _____
13) $13 + 5 = 5 + 13$ Property: _____ _____	14) $15 \times (7 + 9) = 15 \times 7 + 15 \times 9$ Property: _____ _____
15) $10 + (2 + 6) = (10 + 2) + 6$ Property: _____ _____	16) $7 + 0 = 7$ Property: _____ _____

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Identity and Inverse Properties

Use appropriate '+' or '×' symbols to satisfy the equation. Identify the property used.

1) $2 \square 0 = 2$ Property: _____ _____	2) $5 \square \frac{1}{5} = 1$ Property: _____ _____	3) $2 \square (-2) = 0$ Property: _____ _____
4) $\frac{1}{10} \square 10 = 1$ Property: _____ _____	5) $0 \square 8 = 8$ Property: _____ _____	6) $1 \square 12 = 12$ Property: _____ _____
7) $-1 \square 1 = 0$ Property: _____ _____	8) $2 \square \frac{1}{2} = 1$ Property: _____ _____	9) $9 \square 1 = 9$ Property: _____ _____
10) $13 \square 0 = 13$ Property: _____ _____	11) $9 \square (-9) = 0$ Property: _____ _____	12) $4 \square 0 = 4$ Property: _____ _____
13) $-5 \square 5 = 0$ Property: _____ _____	14) $14 \square 0 = 14$ Property: _____ _____	15) $7 \square \frac{1}{7} = 1$ Property: _____ _____
16) $4 \square 1 = 4$ Property: _____ _____	17) $\frac{1}{8} \square 8 = 1$ Property: _____ _____	18) $11 \square 0 = 11$ Property: _____ _____
19) $1 \square 2 = 2$ Property: _____ _____	20) $12 \square (-12) = 0$ Property: _____ _____	21) $6 \square \frac{1}{6} = 1$ Property: _____ _____

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Identify the Property

Identify the property from the choices below.

<p>1) Commutative</p> <p>A. $6 \times 2 = 2 \times 6$</p> <p>B. $6 + (2 + 11) = (6 + 2) + 11$</p> <p>C. $6 \times 1 = 6$</p> <p>D. $6 + (-6) = 0$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>	<p>2) Inverse</p> <p>A. $11 + 4 = 4 + 11$</p> <p>B. $11 \times \frac{1}{11} = 1$</p> <p>C. $11 + 0 = 11$</p> <p>D. $11 \times (4 + 7) = 11 \times 4 + 11 \times 7$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>
<p>3) Identity</p> <p>A. $5 \times 9 = 9 \times 5$</p> <p>B. $5 + (9 + 4) = (5 + 9) + 4$</p> <p>C. $5 + (-5) = 0$</p> <p>D. $5 + 0 = 5$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>	<p>4) Distributive</p> <p>A. $2 + 8 = 8 + 2$</p> <p>B. $(2 + 8) + 6 = 2 + (8 + 6)$</p> <p>C. $2 \times 1 = 2$</p> <p>D. $2 \times (8 + 6) = 2 \times 8 + 2 \times 6$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>
<p>5) Associative</p> <p>A. $7 + 0 = 7$</p> <p>B. $7 \times (6 \times 3) = (7 \times 6) \times 3$</p> <p>C. $7 \times 6 = 6 \times 7$</p> <p>D. $7 + (-7) = 0$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>	<p>6) Commutative</p> <p>A. $6 \times (8 + 3) = 6 \times 8 + 6 \times 3$</p> <p>B. $6 + (-6) = 0$</p> <p>C. $6 + 8 = 8 + 6$</p> <p>D. $6 + (8 + 3) = (6 + 8) + 3$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>
<p>7) Inverse</p> <p>A. $10 + (-10) = 0$</p> <p>B. $10 + 0 = 10$</p> <p>C. $10 \times 5 = 5 \times 10$</p> <p>D. $10 \times (5 + 3) = 10 \times 5 + 10 \times 3$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>	<p>8) Distributive</p> <p>A. $4 + 6 = 6 + 4$</p> <p>B. $4 \times (6 + 7) = 4 \times 6 + 4 \times 7$</p> <p>C. $4 \times 1 = 4$</p> <p>D. $4 + (6 + 7) = (4 + 6) + 7$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>
<p>9) Commutative</p> <p>A. $11 \times (5 \times 8) = (11 \times 5) \times 8$</p> <p>B. $11 \times 5 = 5 \times 11$</p> <p>C. $11 \times (5 + 8) = 11 \times 5 + 11 \times 8$</p> <p>D. $11 + 0 = 11$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>	<p>10) Associative</p> <p>A. $3 + 4 = 4 + 3$</p> <p>B. $3 \times (4 + 9) = 3 \times 4 + 3 \times 9$</p> <p>C. $3 \times \frac{1}{3} = 1$</p> <p>D. $(3 + 4) + 9 = 3 + (4 + 9)$</p> <p>Correct Choice: <input style="width: 40px; height: 20px;" type="text"/></p>