

Properties of Operations

<p>Commutative Properties You can add or multiply numbers in any order and the sum or product will be the same.</p> <p>Examples: $10 + 5 + 3 = 5 + 3 + 10 = 18$ $7 \times 5 = 5 \times 7 = 35$</p>	<p>Associative Properties You can group numbers differently. It will not affect the sum or product.</p> <p>Examples: $2 + (7 + 6) = (2 + 7) + 6 = 15$ $(4 \times 5) \times 8 = 4 \times (5 \times 8) = 160$</p>
<p>Identity Properties You can add zero to a number or multiply it by 1 and not change the value of the number.</p> <p>Examples: $17 + 0 = 17$ $45 \times 1 = 45$</p>	<p>Multiplication Property of Zero If you multiply a number by zero, the product will always be zero.</p> <p>Example: $12 \times 0 = 0$</p>

Find each missing number. Tell what property or properties are shown.

1. $9 \times 5 = 5 \times$ _____

2. _____ $\times 89 = 89$

3. $(3 + 4) + 19 = 3 +$ (_____ $+ 19)$

4. $128 +$ _____ $= 128$

5. _____ $+ 18 = 18 + 12$

6. **Reasoning** What is the product of any number, x , multiplied by 1? Explain how you know.
