# Commutative Law

**DEFINITION**

A law of arithmetic that states that if two numbers are subject to certain operations, then the order of the numbers doesn't affect the result

**CHARACTERISTICS**

- Only applies to addition and multiplication for numbers
- Can only be applied to two numbers at a time
- Has to be same operation throughout

**EXAMPLES**

$7 + 8 = 8 + 7$

$7 \times 8 = 8 \times 7$

$7 + 8 + 9 = 7 + 9 + 8 = 8 + 7 + 9$

$7 \times 8 \times 9 = 9 \times 8 \times 7 = 8 \times 9 \times 7$

**NON-EXAMPLES**

$7 \div 8 \neq 8 \div 7$

$7 - 8 \neq 8 - 7$

$7 \times 8 + 9 \neq 7 \times 9 + 8$