

Properties of Multiplication - Step-by-Step Lesson**Lesson 1 Solve the equations:**

1) Which equation shows the commutative property of multiplication?

a) $(4 \times 5) \times 8 = 4 \times (5 \times 8)$

b) $6 \times 5 = 5 + 5 + 5 + 5 + 5 + 5$

c) $2 \times 4 = 8$

d) $7 \times 2 = 2 \times 7$

Explanation:

Let's look at the properties of multiplication:

Commutative property of multiplication – If you multiply two integers, the product is always the same regardless of the order you multiply them in.

$$4 \times 8 = 8 \times 4$$

Associative property of multiplication – This one is very similar to the commutative property, but this deals with three or more numbers. It doesn't matter what order you multiply three or more numbers in; their product is always the same.

$$9 \times 7 \times 6 = 6 \times 7 \times 9 = 7 \times 9 \times 6 = 9 \times 6 \times 7$$

Distributive property of multiplication – When you have two numbers that are to be added and multiplied by a number the product is the same as the sum of the product of each of those numbers.

$$(7 \times 5) + (2 \times 5) = 5(7 + 2)$$

The Multiplicative Property – When you multiply any number by one the product is itself.

Zero Property – Multiplying any number by zero results in a product of 0.

The commutative property you can multiply numbers in any order and get the same regardless of the order of the multiplicand. So, the answer is

d) $7 \times 2 = 2 \times 7$

