

## Properties of Multiplication

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Identify the property of multiplication used in the given equation.

1.  $2 \times 4 = 4 \times 2$

- Associative property
- Commutative property
- Distributive property
- Identity property

2.  $10 \times (6 \times 2) = (10 \times 6) \times 2$

- Associative property
- Commutative property
- Distributive Property
- Zero property

3.  $5 \times 1 = 5$

- Associative property
- Commutative property
- Distributive property
- Identity property

4.  $9 \times (5 + 7) = (9 \times 5) + (9 \times 7)$

- Associative property
- Commutative property
- Distributive property
- Identity property

5.  $7 \times 0 = 0$

- Associative property
- Commutative property
- Distributive property
- Zero property

**Which equation shows distributive property of multiplication?**

- 6.
- $6 \times 1 = 6$
  - $6 \times 2 = 2 \times 6$
  - $6 \times (2 + 7) = (6 \times 2) + (6 \times 7)$
  - $6 \times (2 \times 7) = (6 \times 2) \times 7$

**Which equation shows identity property of multiplication?**

- 7.
- $8 \times 1 = 8$
  - $8 \times 3 = 3 \times 8$
  - $8 \times (8 + 2) = (8 \times 8) + (8 \times 2)$
  - $8 \times (2 \times 4) = (8 \times 2) \times 4$

**Which equation shows associative property of multiplication?**

8.   $5 \times 1 = 5$   
  $5 \times 8 = 8 \times 5$   
  $5 \times (8 + 9) = (5 \times 8) + (5 \times 9)$   
  $5 \times (8 \times 9) = (5 \times 8) \times 9$

**Which equation shows zero property of multiplication?**

9.   $5 \times 0 = 0$   
  $7 \times 8 = 8 \times 7$   
  $2 \times (8 + 3) = (2 \times 8) + (2 \times 3)$   
  $4 \times (5 \times 9) = (4 \times 5) \times 9$

**Which equation shows commutative property of multiplication?**

10.   $9 \times 1 = 9$   
  $8 \times 9 = 9 \times 8$   
  $7 \times (8 + 9) = (7 \times 8) + (7 \times 9)$   
  $9 \times (8 \times 9) = (9 \times 8) \times 9$

**Create an equation using the given numbers and the multiplication property.**

11. 8 and 4

Commutative Property of Multiplication

- $8 \times 4 = 32$   
  $8 + 4 = 4 + 8$   
  $8 \times 1 = 4 \times 1$   
  $8 \times 4 = 4 \times 8$

12. 8, 7 and 10

Associative Property of Multiplication

$8 \times (7 + 10) = (8 \times 7) + (8 \times 10)$

$8 + 7 + 10 = 10 + 7 + 8$

$8 \times (7 \times 10) = (8 \times 7) \times 10$

$8 + (7 \times 10) = (8 + 7) \times (8 + 10)$

13. 15 and 1

Identity Property of Multiplication

$15 \times (1 + 1) = (15 \times 1) + (15 \times 1)$

$15 \times 1 = 15$

$15 + 1 = 1 + 15$

$15 + (1 \times 1) = (15 + 1) \times 1$

14. 7, 5 and 4

Distributive Property of Multiplication

$7 \times (5 \times 4) = (7 \times 5) \times 4$

$7 \times 5 \times 4 = 4 \times 5 \times 7$

$7 \times (5 + 4) = (7 \times 5) + (7 \times 4)$

$7 \times 5 \times 4 = 7 \times 4 \times 5$

15. 18 and 0

Zero Property of Multiplication

$18 \times 0 = 0 \times 1$

$8 + 0 = 0 + 8$

$8 \times 1 = 1 \times 8$

$18 \times 0 = 0$