

4.OA.A.1 Using Models in Multiplication Properties

4.OA.A.1: Interpret a multiplication equation as a comparison.

1. Name the property shown by each model.



$$5 \times 0 = 0$$

Solution:



$$1 \times 4$$

Solution:



$$2 \times 5 = 5 \times 2$$

Solution:

2. Name the property used in the following equations.

- $1 \times 30 = 30$
- $(5 \times 4) \times 7 = 5 \times (4 \times 7)$
- $9 \times 18 = 9 \times (10 + 8)$
- $16 \times 7 = 7 \times 16$

Solution:

- _____
- _____
- _____
- _____

3. Use one of multiplication properties to find the product.

- 3×18
- $1 \times 17 \times 1$
- $12 \times 0 \times 3$
- 2×14

Solution:

- _____
- _____
- _____
- _____

4. Use one of multiplication properties to find the missing number. Name the property used.

- $(2 \times 8) \times 4 = \underline{\hspace{2cm}} \times (8 \times 4)$
- $5 \times 19 = 5 \times (10 + \underline{\hspace{2cm}})$
- $3 \times 17 = (3 \times \underline{\hspace{2cm}}) + (3 \times 7)$
- $9 \times 5 = \underline{\hspace{2cm}} \times 9$

Solution:

- _____
- _____
- _____
- _____

5. In a bus, there are 7 rows with 2 seats each. Every seat can accommodate 3 people. How many people can the bus accommodate at a time?

Solution:

6. Sandra bought 7 packs of soap. Each pack of soap costs \$12. Which statement uses the distributive property of multiplication to solve the problem?

- 7×12
- $7 \times 10 + 7 \times 2$
- $12 \times 7 \times 2$
- None of the Above

Solution:

4.OA.A.1 Using Models in Multiplication Properties

Answer Key

4.OA.A.1: Interpret a multiplication equation as a comparison.

1. Name the property shown by each model.



$$5 \times 0 = 0$$

Solution:

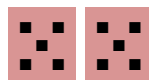
Zero Property



$$1 \times 4$$

Solution:

Identity Property



$$2 \times 5 = 5 \times 2$$

Solution:

Commutative Property

2. Name the property used in the following equations.

- $1 \times 30 = 30$
- $(5 \times 4) \times 7 = 5 \times (4 \times 7)$
- $9 \times 18 = 9 \times (10 + 8)$
- $16 \times 7 = 7 \times 16$

Solution:

- Identity Property
- Associative Property
- Distributive Property
- Commutative Property

3. Use one of multiplication properties to find the product.

- 3×18
- $1 \times 17 \times 1$
- $12 \times 0 \times 3$
- 2×14

Solution:

- $(3 \times 10) + (3 \times 8) = 30 + 24 = 54$
- $17 \times 1 = 17$
- $0 \times 3 = 0$
- $(2 \times 10) + (2 \times 4) = 20 + 8 = 28$

4. Use one of multiplication properties to find the missing number. Name the property used.

- $(2 \times 8) \times 4 = \underline{2} \times (8 \times 4)$
- $5 \times 19 = 5 \times (10 + \underline{9})$
- $3 \times 17 = (3 \times \underline{10}) + (3 \times 7)$
- $9 \times 5 = \underline{5} \times 9$

Solution:

- Associative Property
- Distributive Property
- Distributive Property
- Commutative Property

5. In a bus, there are 7 rows with 2 seats each. Every seat can accommodate 3 people. How many people can the bus accommodate at a time?

Solution:

$$7 \times (2 \times 3) = 7 \times 6 = 42$$

Answer: 42 people

6. Sandra bought 7 packs of soap. Each pack of soap costs \$12. Which statement uses the distributive property of multiplication to solve the problem?

- 7×12
- $7 \times 10 + 7 \times 2$
- $12 \times 7 \times 2$
- None of the Above

Solution:

B. $7 \times 10 + 7 \times 2$