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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.

$5 \times 0 = 0$ 1×4 $2 \times 5 = 5 \times 2$

Solution:

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2. Name the property used in the following equations.

a. $1 \times 30 = 30$
b. $(5 \times 4) \times 7 = 5 \times (4 \times 7)$
c. $9 \times 18 = 9 \times (10 + 8)$
d. $16 \times 7 = 7 \times 16$

Solution:
a. _____
b. _____
c. _____
d. _____

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

a. 3×18
b. $1 \times 17 \times 1$
c. $12 \times 0 \times 3$
d. 2×14

Solution:
a. _____
b. _____
c. _____
d. _____

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

a. $(2 \times 8) \times 4 =$ _____ $\times (8 \times 4)$
b. $5 \times 19 = 5 \times (10 +$ _____ $)$
c. $3 \times 17 = (3 \times$ _____ $) + (3 \times 7)$
d. $9 \times 5 =$ _____ $\times 9$

Solution:
a. _____
b. _____
c. _____
d. _____

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?

A. 7×12
B. $7 \times 10 + 7 \times 2$
C. $12 \times 7 \times 2$
D. None of the Above

Solution:

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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

1×4

Solution: Identity Property

$2 \times 5 = 5 \times 2$

Solution: Commutative Property

2. Name the property used in the following equations.

a. $1 \times 30 = 30$
b. $(5 \times 4) \times 7 = 5 \times (4 \times 7)$
c. $9 \times 18 = 9 \times (10 + 8)$
d. $16 \times 7 = 7 \times 16$

Solution:
a. Identity Property
b. Associative Property
c. Distributive Property
d. Commutative Property

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

a. 3×18
b. $1 \times 17 \times 1$
c. $12 \times 0 \times 3$
d. 2×14

Solution:
a. $(3 \times 10) + (3 \times 8) = 30 + 24 = 54$
b. $17 \times 1 = 17$
c. $0 \times 3 = 0$
d. $(2 \times 10) + (2 \times 4) = 20 + 8 = 28$

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

a. $(2 \times 8) \times 4 =$ 2 $\times (8 \times 4)$
b. $5 \times 19 = 5 \times (10 +$ 9 $)$
c. $3 \times 17 = (3 \times$ 10 $) + (3 \times 7)$
d. $9 \times 5 =$ 5 $\times 9$

Solution:
a. Associative Property
b. Distributive Property
c. Distributive Property
d. 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?

A. 7×12
B. $7 \times 10 + 7 \times 2$
C. $12 \times 7 \times 2$
D. None of the Above

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