tutorified

Understanding Addition Properties

1. Which of the following shows an example of Commutative Property of Addition?

    A. $(7 + 3) + 4 = 7 + (3 + 4)$ C. $21 + 15 = 15 + 21$
    B. $8 + 0 = 8$ D. $8 + (6 - 3) = (8 - 6) + 3$

Solution:

2. Which of the following shows an example of Associative Property of Addition?

    A. $7 + (5 + 1) = (5 + 1) + 7$ C. $34 + 0 = 34$
    B. $8 + 2 = 10$ D. $(4 + 2) + 8 = 4 + (2 + 8)$

Solution:

3. Which of the following shows an example of Identity Property of Addition?

    A. $42 + 0 = 42$ C. $21 + 15 = 15 + 21$
    B. $(11 + 3) + 6 = 11 + (3 + 6)$ D. $31 + 2 + 0 = 2 + 0 + 31$

Solution:

4. Find the missing numbers. Which property of addition did you use to find it?

a. $(5 + 8) + 4 = \underline{\hspace{2cm}} + (8 + 4)$

b. $\underline{\hspace{2cm}} + 17 = 17 + 100$

c. $\underline{\hspace{2cm}} + 55 = 55 + 24$

d. $27 + \underline{\hspace{2cm}} = 27$

e. $35 + (\underline{\hspace{2cm}} + 10) = (35 + 12) + 10$

f. $14 + \underline{\hspace{2cm}} = 21 + 14$

Solution:

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

5. A party organizer counted the total number of balloons by color in a party room. She collected the data in the table provided. Use this table to answer the following questions.

    a. Find the total number of red and blue balloons. Did you use any addition property?

    b. Find the total number of yellow and orange balloons. If the number of these two colors is reversed, will the total be any different?

Balloons in a Party Room

Color	Number
Red	12
Blue	18
Yellow	21
Orange	16

Solution:

a.

b.

6. Define the Identity Property of Addition.

Solution:

Understanding Addition Properties

1. Which of the following shows an example of Commutative Property of Addition?

    A. $(7 + 3) + 4 = 7 + (3 + 4)$ C. $21 + 15 = 15 + 21$
    B. $8 + 0 = 8$ D. $8 + (6 - 3) = (8 - 6) + 3$

Solution:
    C. $21 + 15 = 15 + 21$

2. Which of the following shows an example of Associative Property of Addition?

    A. $7 + (5 + 1) = (5 + 1) + 7$ C. $34 + 0 = 34$
    B. $8 + 2 = 10$ D. $(4 + 2) + 8 = 4 + (2 + 8)$

Solution:
    D. $(4 + 2) + 8 = 4 + (2 + 8)$

3. Which of the following shows an example of Identity Property of Addition?

    A. $42 + 0 = 42$ C. $21 + 15 = 15 + 21$
    B. $(11 + 3) + 6 = 11 + (3 + 6)$ D. $31 + 2 + 0 = 2 + 0 + 31$

Solution:
    A. $42 + 0 = 42$

4. Find the missing numbers. Which property of addition did you use to find it?

    a. $(5 + 8) + 4 = \underline{\quad 5 \quad} + (8 + 4)$
    b. $\underline{\quad 100 \quad} + 17 = 17 + 100$
    c. $\underline{\quad 24 \quad} + 55 = 55 + 24$
    d. $27 + \underline{\quad 0 \quad} = 27$
    e. $35 + (\underline{\quad 12 \quad} + 10) = (35 + 12) + 10$
    f. $14 + \underline{\quad 21 \quad} = 21 + 14$

Solution:
    a.   Associative Property
    b.   Commutative Property
    c.   Commutative Property
    d.   Identity Property
    e.   Associative Property
    f.   Commutative Property

5. A party organizer counted the total number of balloons by color in a party room. She collected the data in the table provided. Use this table to answer the following questions.

    a. Find the total number of red and blue balloons. Did you use any addition property?

    b. Find the total number of yellow and orange balloons. If the number of these two colors is reversed, will the total be any different?

Balloons in a Party Room

Color	Number
Red	12
Blue	18
Yellow	21
Orange	16

Solution:

a.
$12 + 18 = 40$ or $18 + 12 = 40$
Answer: 40 balloons
Yes, I used Commutative Property.

b.
$21 + 16 = 37$ or $16 + 21 = 37$
Answer: 37 balloons
No, it will not be any different. Commutative Property states that changing the position of addends will not affect the sum.

6. Define the Identity Property of Addition.

Solution:
Identity Property of Additions states that when you add zero to any number, it equals to the number itself.