

Properties of Addition

Worksheet 1



The **commutative property of addition** is the rule which states that the order in which the numbers of an expression are combined does not affect the outcome.

Example: $3 + 5 = 5 + 3$

The **associative property of addition** is the rule which states that the grouping of numbers in an expression does not affect the outcome.

Example: $(3 + 5) + 7 = 3 + (5 + 7)$

Which equation shows the commutative property of addition?

1. $(3 + 4) + 3 = 3 + (4 + 3)$
 $7 + 3 = 3 + 7$
 $7 + 3 = 10$
 $10 = 7 + 3$

2. $9 + 4 = 4 + 9$
 $9 + 4 = 13$
 $13 = 9 + 4$
 $(5 + 4) + 4 = 5 + (4 + 4)$

3. $8 + 5 = 13$
 $13 = 8 + 5$
 $(6 + 2) + 5 = 6 + (2 + 5)$
 $8 + 5 = 5 + 8$

4. $8 = 6 + 2$
 $(2 + 4) + 2 = 2 + (4 + 2)$
 $6 + 2 = 2 + 6$
 $6 + 2 = 8$

Which equation shows the associative property of addition?

5. $10 = 6 + 4$
 $(5 + 1) + 4 = 5 + (1 + 4)$
 $6 + 4 = 4 + 6$
 $6 + 4 = 10$

6. $(3 + 2) + 7 = 3 + (2 + 7)$
 $5 + 7 = 7 + 5$
 $5 + 7 = 12$
 $12 = 5 + 7$

7. $9 + 6 = 6 + 9$
 $9 + 6 = 15$
 $15 = 9 + 6$
 $(7 + 2) + 6 = 7 + (2 + 6)$

8. $8 + 3 = 11$
 $11 = 8 + 3$
 $(2 + 6) + 3 = 2 + (6 + 3)$
 $8 + 3 = 3 + 8$