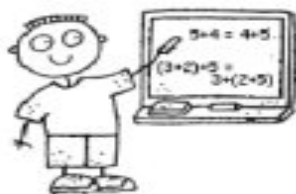


## Properties of Addition

### 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.   $8 + 3 = 11$

$11 = 8 + 3$

$(2 + 6) + 3 = 2 + (6 + 3)$

$8 + 3 = 3 + 8$