

## Multiplication - associative property

### Grade 4 Math Worksheet

In multiplication, the way in which the numbers are grouped in a problem does not change the product of those numbers.

Example:  $(3 \times 4) \times 5 = 3 \times (4 \times 5)$

Use the associative property to fill the missing values.

1)  $( \_ \times 3 ) \times 8 = ( \_ \times 3 ) \times 6$

2)  $( 76 \times \_ ) \times 9 = ( \_ \times 3 ) \times 76$

3)  $( \_ \times 87 ) \times 17 = 17 \times ( \_ \times 4 )$

4)  $\_ \times ( 14 \times 90 ) = 90 \times ( \_ \times 9 )$

5)  $( 89 \times \_ ) \times 8 = 8 \times ( \_ \times 43 )$

6)  $( \_ \times 7 ) \times 6 = ( \_ \times 5 ) \times 6$

7)  $( \_ \times 46 ) \times 87 = ( \_ \times 37 ) \times 87$

8)  $\_ \times ( 38 \times 59 ) = \_ \times ( 6 \times 38 )$

9)  $\_ \times ( 4 \times 52 ) = ( 4 \times 57 ) \times \_$

10)  $\_ \times ( 52 \times 4 ) = 52 \times ( \_ \times 5 )$

Does the associative property apply to addition questions?  
Answer and show an example.

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In multiplication, the way in which the numbers are grouped in a problem does not change the product of those numbers.

Example:  $(3 \times 4) \times 5 = 3 \times (4 \times 5)$

Use the associative property to fill the missing values.

1)  $(\underline{6} \times 3) \times 8 = (\underline{8} \times 3) \times 6$

2)  $(76 \times \underline{3}) \times 9 = (\underline{9} \times 3) \times 76$

3)  $(\underline{4} \times 87) \times 17 = 17 \times (\underline{87} \times 4)$

4)  $\underline{9} \times (14 \times 90) = 90 \times (\underline{14} \times 9)$

5)  $(89 \times \underline{43}) \times 8 = 8 \times (\underline{89} \times 43)$

6)  $(\underline{5} \times 7) \times 6 = (\underline{7} \times 5) \times 6$

7)  $(\underline{37} \times 46) \times 87 = (\underline{46} \times 37) \times 87$

8)  $\underline{6} \times (38 \times 59) = \underline{59} \times (6 \times 38)$

9)  $\underline{57} \times (4 \times 52) = (4 \times 57) \times \underline{52}$

10)  $\underline{5} \times (52 \times 4) = 52 \times (\underline{4} \times 5)$

Does the associative property apply to addition questions?  
Answer and show an example.

Yes, the associative property can be applied for addition questions.

$$(2 + 8) + 6 = 10 + 6 = 16$$

$$2 + (8 + 6) = 2 + 14 = 16$$