

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) $(_ \times 5) \times 4 = 5 \times (_ \times 99)$

2) $6 \times (_ \times 87) = (52 \times _) \times 6$

3) $_ \times (42 \times 16) = 16 \times (_ \times 61)$

4) $(39 \times 93) \times _ = (68 \times _) \times 93$

5) $(55 \times 2) \times _ = (35 \times 2) \times _$

6) $_ \times (67 \times 39) = 27 \times (_ \times 67)$

7) $(8 \times 4) \times _ = 7 \times (8 \times _)$

8) $_ \times (20 \times 80) = 20 \times (31 \times _)$

9) $_ \times (31 \times 6) = (_ \times 20) \times 31$

10) $(6 \times _) \times 15 = 15 \times (_ \times 69)$

Does the associative property apply to subtraction 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) $(\underline{99} \times 5) \times 4 = 5 \times (\underline{4} \times 99)$

2) $6 \times (\underline{52} \times 87) = (52 \times \underline{87}) \times 6$

3) $\underline{61} \times (42 \times 16) = 16 \times (\underline{42} \times 61)$

4) $(39 \times 93) \times \underline{68} = (68 \times \underline{39}) \times 93$

5) $(55 \times 2) \times \underline{35} = (35 \times 2) \times \underline{55}$

6) $\underline{27} \times (67 \times 39) = 27 \times (\underline{39} \times 67)$

7) $(8 \times 4) \times \underline{7} = 7 \times (8 \times \underline{4})$

8) $\underline{31} \times (20 \times 80) = 20 \times (31 \times \underline{80})$

9) $\underline{20} \times (31 \times 6) = (\underline{6} \times 20) \times 31$

10) $(6 \times \underline{69}) \times 15 = 15 \times (\underline{6} \times 69)$

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

No, the associative property cannot be applied for subtraction questions.

$$(15 - 8) - 5 = 7 - 5 = 2$$

$$15 - (8 - 5) = 15 - 3 = 12$$