BODMAS and PEMDAS Example

Evaluate 18 - 12 / 3 x 2 + (4 - 1)^2 using BODMAS or PEMDAS.
Simplify the grouped subtraction, then evaluate the exponent.
Division and multiplication share priority; calculate them left to right.
Subtraction and addition also share priority; the final value is 19.

Problem

18 - 12 / 3 x 2 + (4 - 1)^2 = ?

Stage	Expression	Calculation
Grouping	18 - 12 / 3 x 2 + 3^2	4 - 1 = 3
Exponent	18 - 12 / 3 x 2 + 9	3^2 = 9
Divide / multiply	18 - 8 + 9	12 / 3 = 4; 4 x 2 = 8
Subtract / add	**19**	**18 - 8 = 10; 10 + 9 = 19**

Step-by-step solution

1. Simplify the parentheses

4 - 1 = 3, so replace the grouped expression with 3.

2. Evaluate the exponent

3^2 = 9. The expression is now 18 - 12 / 3 x 2 + 9.

3. Divide and multiply left to right

12 / 3 = 4, then 4 x 2 = 8. This part becomes 18 - 8 + 9.

4. Subtract and add left to right

18 - 8 = 10, then 10 + 9 = 19.

Answer

18 - 12 / 3 x 2 + (4 - 1)^2 = 18 - 8 + 9 = 19

The expression evaluates to 19.