

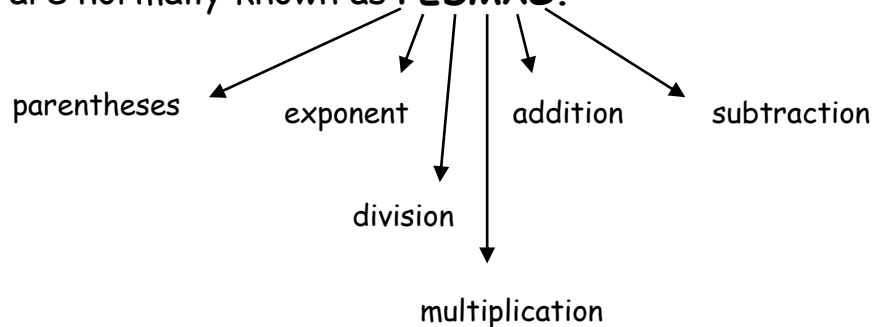


ORDER OF OPERATIONS

When we have a mathematical expression where more than one operations is involved, we tend evaluate the problem in a specific order.

1. **Parentheses ()** - first of all solve what's within the brackets i.e carry out the operations within them.
2. **Exponents a^2** - then solve the exponents, if you have any in the expression.
3. **Division & Multiplication** - after that perform multiplication and division operations in the expression starting from *left to right*.
4. **Addition & Subtraction** - lastly perform addition and subtraction operations in the expression starting from *left to right*.

These set of rules are normally known as **PEDMAS**.



Example: Solve the expression following the correct order of operations.

$$6 + (3 \times 4) \div 4 - 5$$

Solution:

$$\begin{aligned} &6 + 12 \div 4 - 5 \quad (\text{solve what's in the brackets}) \\ &= 6 + 3 - 5 \quad (\text{then divide}) \\ &= 9 - 5 \quad (\text{then add}) \\ &= 4 \quad (\text{finally subtract}) \end{aligned}$$