

## ORDER of OPERATIONS

The acronym often taught for the order of operations is PEMDAS

P → parenthesis

E → exponents

M → multiplication

D → division

A → addition

S → subtraction

Note: Multiplication and division must be done at the same time, working LEFT to RIGHT.

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The order of operations is just a guideline. It does not include absolute value, radicals, etc. We will soon outgrow PEMDAS.

example 1: Evaluate:

↳ a)  $7 - 5 + 1 =$

↳ b)  $8 \div 4 + 4 =$

↳ c)  $4 \div 2^2 + 3 - 1 - 2$

↳ d)  $(4 + 1)^2 - 3^2$

example 2: Evaluate:

$$\frac{7(2^3 - 1) + 1}{10 - 3^2}$$

Note: We must simplify the numerator and the denominator separately. Then divide if possible.

$$\leadsto \frac{7(2^3 - 1) + 1}{10 - 3^2} =$$

## ORDER of OPERATIONS Practice Problems

Evaluate:

1.  $9 - 4 + 7$

2.  $16 \div 8 \cdot 5$

3.  $18 \div 3^2 + 8 - (3 - 2)$

4. 
$$\frac{6(4^2 - 10) - 4}{5^2 - 9}$$