

ORDER OF OPERATIONS

Number

Key Concept

B Brackets

I Indices

D Division

M Multiplication

A Addition

S Subtraction

If a calculation contains the looped calculations work from left to right.



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Key Words

Operation: In maths these are the functions $\times \div + -$.

Commutative: Calculations are commutative if changing the order does not change the result.

Associative: In these calculations you can re-group numbers and you will get the same answer.

Indices: These are the squares, cubes and powers.

Tip

- Put brackets around the calculations which need to be done first.
- Indices also includes roots.

Examples

$$\underbrace{5 \times 4}_{20} - \underbrace{8 \div 2}_4 = 16$$

$$(2^2 + 6)^2 \times 4 - 8$$

$$(4 + 6)^2 \times 4 - 8$$

$$(10)^2 \times 4 - 8$$

$$100 \times 4 - 8$$

$$400 - 8 = 392$$

Questions

- $7 - 10 \div 2$
- $4^3 - 13 \times 4$
- $21 \div 7 - 2$
- $12 \div (7 - 3)$
- $20 \div 2^2$
- $(16 - 13) \div 3$
- Place brackets to make the calculation work $20 \div 5 - 3 = 10$