

Name: _____

Date: _____

Order of Operations Chart

Work in this order so everyone gets the same answer

P

Step 1: Parentheses

Do what is inside () first

E

Step 2: Exponents

Powers and square roots next

MD

Step 3: Multiply and Divide

Together, working left to right

AS

Step 4: Add and Subtract

Together, working left to right

This order is called PEMDAS in the U.S. and BODMAS (brackets, orders) elsewhere. Both mean the same thing.

Worked examples

$$8 + 2 \times 5^2 - (6 \div 3)$$

$$= 8 + 2 \times 5^2 - 2$$

$$= 8 + 2 \times 25 - 2$$

$$= 8 + 50 - 2$$

$$= 58 - 2$$

$$= 56$$

Parentheses: $6 \div 3 = 2$

Exponents: $5^2 = 25$

Multiply: $2 \times 25 = 50$

Add: $8 + 50 = 58$

Subtract: $58 - 2 = 56$

$$24 \div 4 \times 3$$

$$= 6 \times 3$$

$$= 18$$

Divide first (it comes first, left to right)

Multiply

$$(3 + 4) \times 2 - 10 \div 5$$

$$= 7 \times 2 - 10 \div 5$$

$$= 14 - 2$$

$$= 12$$

Parentheses: $3 + 4 = 7$

Multiply and divide: $7 \times 2 = 14$ and $10 \div 5 = 2$

Subtract

Watch out: $24 \div 4 \times 3$ is 18, not 2.

Multiplication does not beat division. They share a step, so go left to right. Same for + and -.

