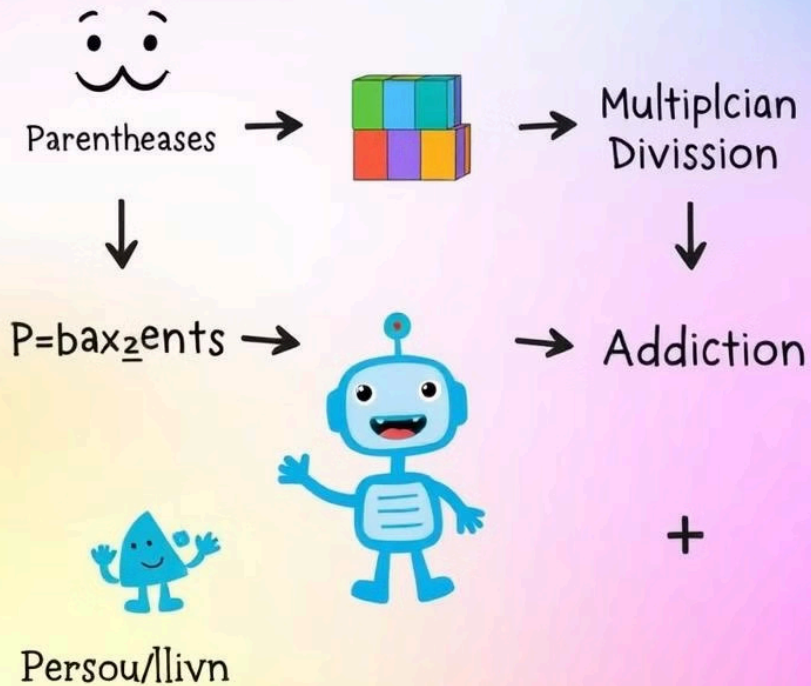# Mathematics: Performing a Series of Operations Using PMDAS or GMDAS

This module focuses on simplifying expressions involving a series of operations on whole numbers using the PMDAS or GMDAS rule.

Understanding PMDAS/GMDAS

1 **Parentheses/Grouping**

Simplify expressions within parentheses or other grouping symbols first.

2 **Multiplication/Division**

Perform multiplication or division from left to right.

3 **Addition/Subtraction**

Perform addition or subtraction from left to right.

Example: (10 ÷ 2 x 5) x (14 + 6 - 4) + 2

Step 1

1

Simplify expressions inside parentheses: (10 ÷ 2 x 5) = 25 and (14 + 6 - 4) = 16.

Step 2

2

Multiply 25 by 16: 25 x 16 = 400.

Step 3

3

Add 400 and 2: 400 + 2 = 402.

$$2x + 5$$

$$2x + 5 \quad 11$$

A:

$\perp$: tink = nome

B:

2 : tix + nome

5:

4 : tirx = purple

IS:

3 : be at

Example: 20 + (10 - 15 ÷ 3) x 3

Step 1

Simplify the expression inside the parentheses: 15 ÷ 3 = 5, then 10 - 5 = 5.

Step 2

Multiply 5 by 3: 5 x 3 = 15.

Step 3

Add 20 and 15: 20 + 15 = 35.

Independent Activity 1

1) [(12 - 3) + (18 ÷ 6) x 3]	2) (7 x 9) - 3 + 8	3) 18 - (12 ÷ 6) + 7
4) 7 - 5 + 8 x (16 ÷ 4)	5) (10 x 6) ÷ (9 - 3 + 6)	6) 15 - 3 + 20 ÷ 5 × 3
7) (6 × 6) - 9 + 8	8) 22 - 15 ÷ 7 + 10	9) 10 + 30 ÷ 2 x 3
10) 12 + 4 x 6 ÷ 8		
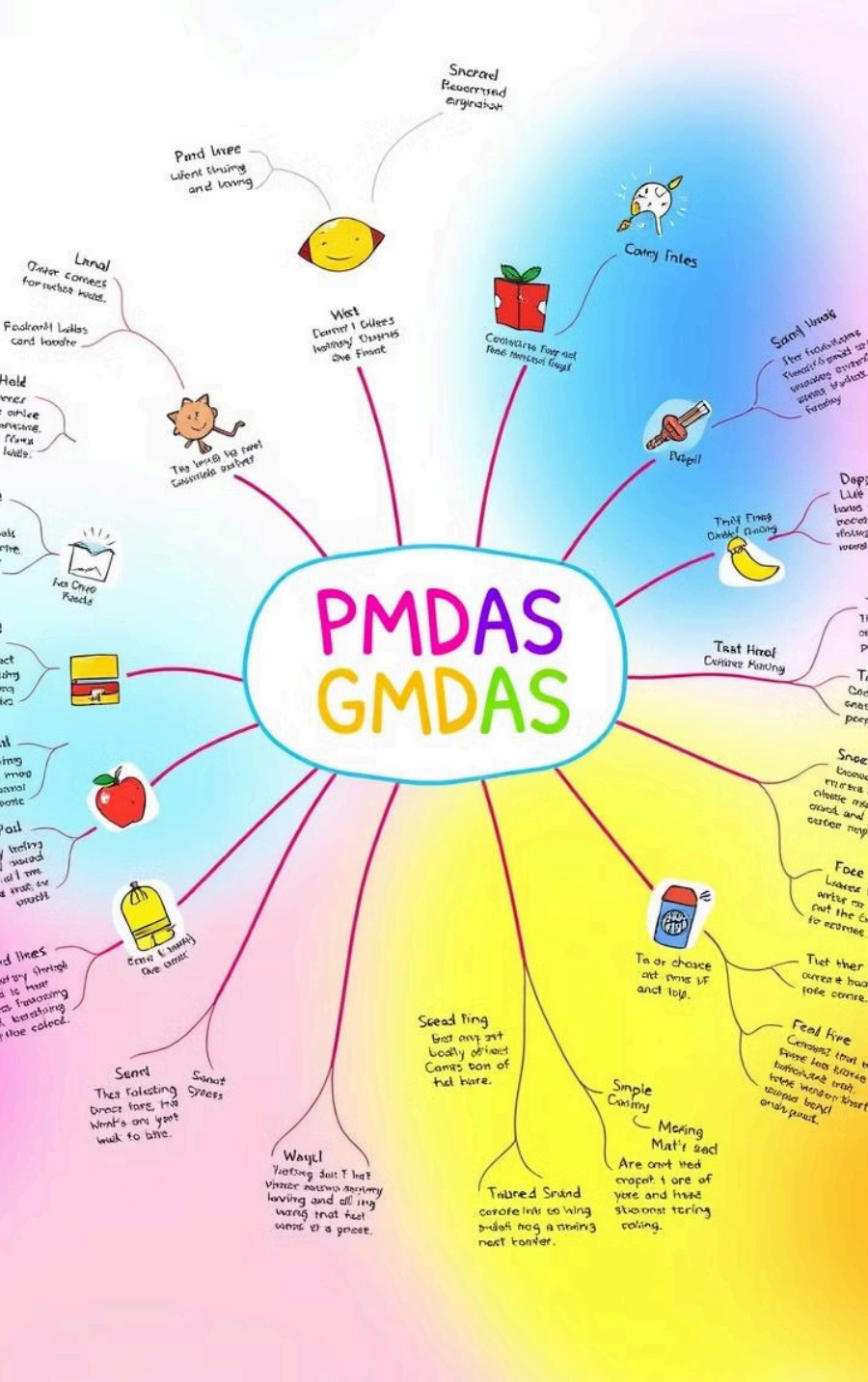
Summary

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Parentheses/Grouping

Simplify expressions within parentheses or other grouping symbols first.

✕

Multiplication/Division

Perform multiplication or division from left to right.

Addition/Subtraction

Perform addition or subtraction from left to right.

Additional Practice

1) 60 x 3 ÷ 4 + 5 = _____	2) (14 - 6) + (3 - 1) x 24 = _____	3) (3 x 30) + (100 ÷ 5) = _____
4) 2 x [3+2 x (10 - 3)] = _____	5) 11 + 3 x [4 + (9 - 8) - 2] = _____	6) 18 ÷ 6 x 4 - 3 + 6 = _____
7) 14 - 8 + 3 + 8 x 24 ÷ 8 = _____	8) 4 x 5 + (14 + 8) - 36 ÷ 6 = _____	9) (28 ÷ 4) + 3 + (10 - 8) x 5 = _____
10) (17 - 7) x 6 + 2 + 56 - 8 = _____		