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PLAYING WITH NUMBERS

SUBJECT : MATHEMATICS
CHAPTER NUMBER: 09
CHAPTER NAME :PLAYING WITH NUMBERS
SUBTOPIC : Simplification of Brackets
PERIOD NO: 1

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Learning outcomes

- Students will be able simplify brackets.
- Students will develop application skill.
- Students will be able to apply BODMAS.

Negative numbers and Integers

- Students will Learn simplification of with the help of a video .
- https://www.youtube.com/watch?v=HTpwqqcI4fQ(7.30)

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BODMAS

B ⟶ **B**racket - () or { }

O ⟶ **O**rder or Power - 2^5, 3^7, $\sqrt{2}$

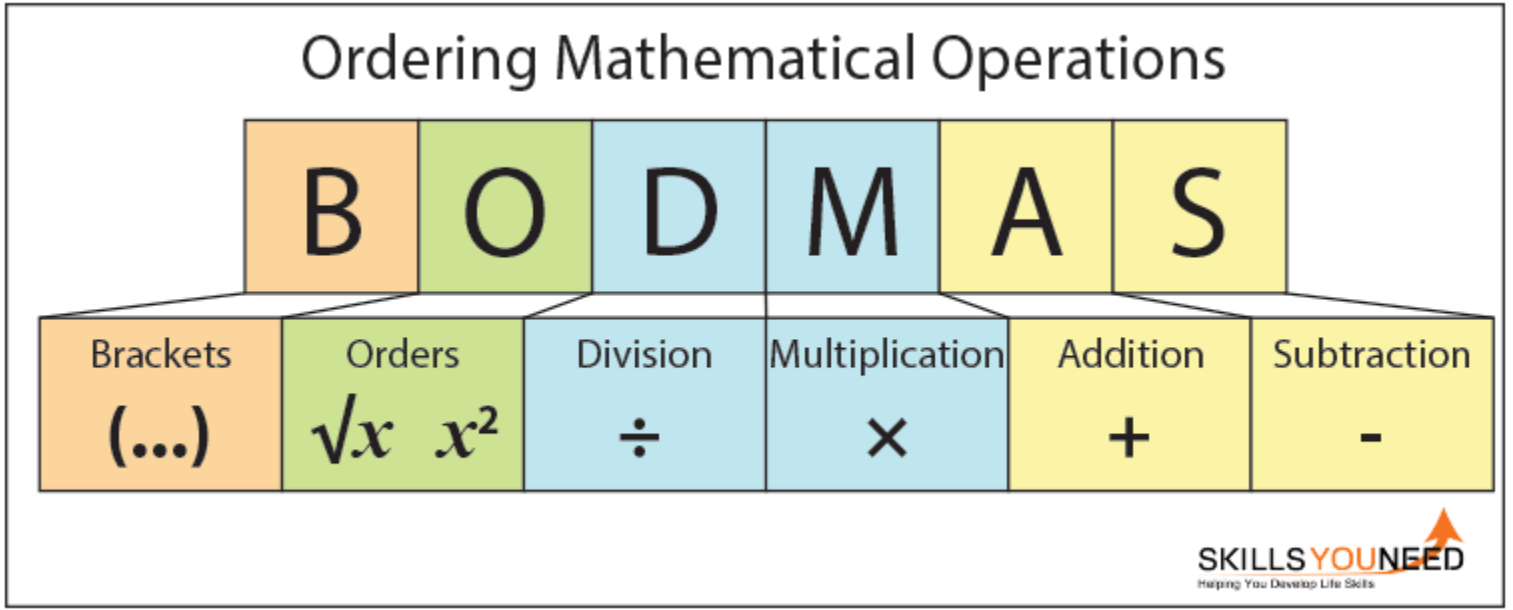
D ⟶ **D**ivision (÷)

M ⟶ **M**ultiplication (×)

A ⟶ **A**ddition (+)

S ⟶ **S**ubtraction (–)

PLATYIN WITH NUMBERS



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$36 \div 6 \times 3 - 2^2 + (3 + 5)$

$= 36 \div 6 \times 3 - 2^2 + 8$

$= 36 \div 6 \times 3 - 4 + 8$

$= 6 \times 3 - 4 + 8$

$= 18 - 4 + 8$

$= 26 - 4$

$= 22$

Brackets: (3+5)

Order of Powers: 2^2

Division: 36÷6

Multiplication: 6×3

Addition: 18+8

Subtraction: 26-4

Evaluation Question EXERCISE 9 A

1. $19 - (1 + 5) - 3$
2. $30 \times 6 \div (5 - 2)$
3. $28 - (3 \times 8) \div 6$
4. $9 - [(4 - 3) + 2 \times 5]$
5. $[18 - (15 \div 5) + 6]$
6. $[(4 \times 2) - (4 \div 2)] + 8$
7. $48 + 96 \div 24 - 6 \times 18$
8. $22 - [3 - \{8 - (4 + 6)\}]$

Evaluation Question

1.19 – (1 + 5) – 3
On further calculation, we get
= 19 – 6 – 3
= 19 – 9 = 10

2.30 × 6 ÷ (5 – 2)
= 30 × 6 ÷ 3 = 30 × 2 = 60

3.28 – (3 × 8) ÷ 6
= 28 – 24 ÷ 6 = 28 – 4
= 24

Evaluation Question

4.Solution: $9 - [(4 - 3) + 2 \times 5]$
$= 9 - [1 + 10] = 9 - 11 = -2$

5.Solution: $[18 - (15 \div 5) + 6]$
$= [18 - 3 + 6]$
$= 18 + 3 = 21$

6.Solution:$[(4 \times 2) - (4 \div 2)] + 8$

$= [8 - 2] + 8 = 6 + 8 = 14$

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Evaluation Question

7.Solution:

Given

$48 + 96 \div 24 - 6 \times 18$

We get

$= 48 + 4 - 6 \times 18$

$= 48 + 4 - 108$

$= 52 - 108$

$= -56$

8.Solution:

Given

$22 - [3 - \{8 - (4 + 6)\}]$

On calculating further, we get

$= 22 - [3 - \{8 - 10\}]$

$= 22 - [3 + 2]$

$= 22 - 5$

$= 17$

Evaluation Question

9. $34 - [29 - \{30 + 66 \div (24 - \overline{28-26})\}]$

Solution: $34 - [29 - \{30 + 66 \div (24 - \overline{28-26})\}]$

$= 34 - [29 - \{30 + 66 \div (24 - 2)\}]$

$= 34 - [29 - \{30 + 66 \div 22\}]$

$= 34 - [29 - \{30 + 3\}]$

$= 34 - [29 - 33] = 34 - [-4]$

$= 34 + 4 = 38$

10. $60 - \{16 \div (4 \times 6 - 8)\}$

Solution:

$60 - \{16 \div (4 \times 6 - 8)\}$

On further calculation, we get

$= 60 - \{16 \div (24 - 8)\}$

$= 60 - \{16 \div 16\} = 60 - 1$

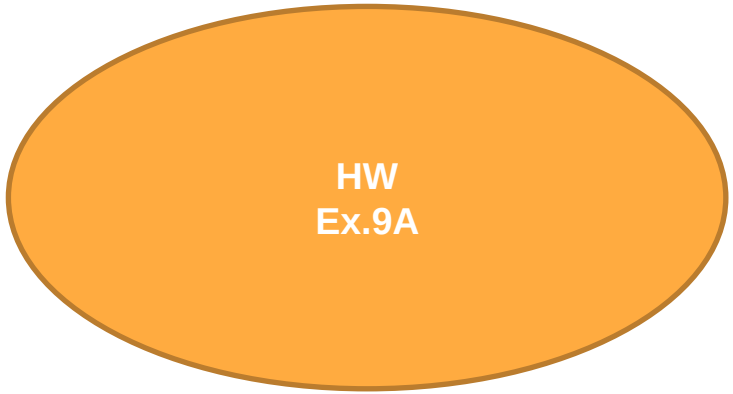
$= 59$

Additional Homework

1. Write the first six multiples of:

(i) 4 **(ii) 9**

(iii) 11 **(iv) 15**



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THANKING YOU

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