

29/06/21

Playing with numbers

Ch-9

Simplification of Brackets

Kind of brackets

- i) Bar or vinculum —
- ii) Smallest brackets $()$
- iii) Curly Brackets $\{ \}$
- iv) Square brackets $[]$

Order of



The order of simplifying these brackets is:

- 1) Bar —
2. Smallest Brackets $()$
3. Curly brackets $\{ \}$
4. Square brackets $[]$

Exercise - 9(A)

1. $19 - (1+5) - 3$

A: $\rightarrow 19 - 6 - 3$
 $= 19 - 9$
 $= 10$

[BODMAS]

B = Brackets

O = of

D = Division

M = Multiplication

A = Addition

S = Subtraction

2. $30 \times 6 \div (5-2)$

A: $30 \times 6 \div 3$
 30×2
 60

3. $28 - (3 \times 8) \div 6$

A: $28 - 24 \div 6$
 $= 28 - 4$
 $= 24$

4. $9 - [(4-3) + 2 \times 5]$

A: $9 - [1 + 10] = 9 - 11 = -2$

5. $[18 - (15 \div 5) + 6]$

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

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

A: ~~$[4 \times 2]$~~
 $= [8 - 2] + 8 = 6 + 8 = 14$

7. $48 + 96 \div 24 - 6 \times 18$

A: $48 + 4 - 6 \times 18$
 $= 48 + 4 - 108$
 $= 52 - 108$
 $= 56$

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

A: $22 - [3 - \{8 - 10\}]$
 $= 22 - [3 - 2]$
 $= 22 - 1$
 $= 21$

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

A: $34 - [29 - \{30 + 66 \div (24 - 2)\}]$
 $= 34 - [29 - \{30 + 66 \div 22\}]$
 $= 34 - [29 - \{30 + 3\}]$
 $= 34 - [29 - 33]$
 $= 34 - 4$
 $= 30$

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

A: On the further calculation, we get
 $= 60 - \{16 \div (24 - 8)\}$
 $= 60 - \{16 \div 16\} = 60 - 1$
 $= 59$

11. $25 - [12 - \{5 + 18 \div (9 - 5 - 3)\}]$

A: $= 25 - [12 - \{5 + 18 \div (4 - 2)\}]$
 $= 25 - [12 - \{5 + 18 \div 2\}]$
 $= 25 - [12 - \{5 + 9\}]$
 $= 25 - [12 - 14]$
 $= 25 - [-2] = 25 + 2 = 27$

12. $15 - [16 - \{12 + 21 \div (9 - 2)\}]$

$= 15 - [16 - \{12 + 21 \div 7\}]$
 $= 15 - [16 - \{12 + 3\}]$
 $= 15 - [16 - 15]$
 $= 15 - 1 = 14$