SIMPLIFICATION

1.Simplify: (1500 − 275) ÷ 25 ÷ 7 + 300 = ?

2.Simplify:[7 + 30 ÷ 6 - (6 + 6) + 7]

3.Find the value of the given expression:10 ÷ 5 × 1 + 3 - [8 - {5 - (7 - 7 - 9)}]

4.Simplify:22 − [9 −{6 − (10 − 4 + 3)}] ÷ 2 × 3

5.Simplify: 2.5 × [144 ÷ 198 × {121 × 81 ÷ (11 × 9)}]

6.Simplify: 325 + 276 ÷ [150 − {9 × 9 + (83 − 4 × 15)}]

7.What is the value of 198÷9+[−77+{−1980+(14 of 7920)}]

8.Simplify:570 × 25% + 480 × 60% - 318 × 32% = ?

9.?% of 145 + 12.5% of 125 = 22 × 22 (correct to two decimal places) is:

10. Simplify:- 12846 × 593 + 12846 × 417 = ?

11. Simplify:- {20 – (25 – 33)} ÷ {- 5 × 4 – (- 6)} + 56 ÷ (- 27 + 13) = ?
12. Simplify:- 11 + 11 ÷ 11 × 11 – 11 + 11 ÷ 11 × 11 – 11 + 11 = ?

13. Find the value of 3.2 + (0.56 ÷ 1.4 × 4) – 5 × 5 ÷ 25 + 5.

14.78 + [-4 + (-3) of {27 + (-18 + (-2))}] = ?

15.3140 – 55 × 1422 ÷ 79 = ? × 22 + 1428 ÷ 8.4

SOLUTIONS

BODMAS Rule:

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (–)	घटाव (–)

1.Calculation:

(1500 – 275) ÷ 25 ÷ 7 + 300 = ?

1225 ÷ 25 ÷ 7 + 300 = ?

49 ÷ 7 + 300 = ?

7 + 300 = 307

2. Calculation :

[7 + 30 ÷ 6 - (6 + 6) + 7]

⇒ 7 + 5 - 12 + 7

⇒ 19 - 12

⇒ 7

The answer is 7.

3.Calculation:

⇒ 10 ÷ 5 × 1 + 3 - [8 - {5 - (7 - 7 - 9)}]

⇒ 10 ÷ 5 × 1 + 3 - [8 - {5 - (- 9)}]

⇒ 10 ÷ 5 × 1 + 3 - [8 - {5 + 9)}]

⇒ 10 ÷ 5 × 1 + 3 - [8 - 14]

$\Rightarrow 10 \div 5 \times 1 + 3 + 6$

$\Rightarrow 2 \times 1 + 3 + 6$

$\Rightarrow 11$

The answer is 11.

4.Calculation :

$22 - [9 - (6 - (10 - 4 + 3)\}] \div 2 \times 3$

$\Rightarrow 22 - [9 - \{6 - (13 - 4)\}] \div 2 \times 3$

$\Rightarrow 22 - [9 - \{6 - 9\}] \div 2 \times 3$

$\Rightarrow 22 - [9 - \{-3\}] \div 2 \times 3$

$\Rightarrow 22 - [9 + 3] \div 2 \times 3$

$\Rightarrow 22 - [12] \div 2 \times 3$

$\Rightarrow 22 - 6 \times 3$

$\Rightarrow 22 - 18$

$\Rightarrow 4$

$\therefore$ The answer is 4.

5.Calculation:

$2.5 \times [144 \div 198 \times \{121 \times 81 \div (11 \times 9)\}]$

$\Rightarrow 2.5 \times [144 \div 198 \times \{121 \times 81 \div 99\}]$

$\Rightarrow 2.5 \times [144 \div 198 \times \{99\}]$

$\Rightarrow 2.5 \times [72]$

$\Rightarrow 180$

$\therefore$ The value is 180.

6. Calculation: $325 + 276 \div [150 - \{9 \times 9 + (83 - 4 \times 15)\}]$

$\Rightarrow 325 + 276 \div [150 - \{9 \times 9 + 23\}]$

$\Rightarrow 325 + 276 \div [150 - 104]$

$\Rightarrow 325 + 276 \div 46$

⇒ 325 + 6 = 331

7.Calculation:198 ÷ 9 + [-77 + {-1980 + (1/4 × 7920)}]

⇒ 198 ÷ 9 + [-77 + {-1980 + (7920/4)}]

⇒ 198 ÷ 9+ [-77 + {-1980 + (1980)}]

⇒ 198 ÷ 9+ [-77 + {-1980 + 1980}]

⇒ 198 ÷ 9 + [-77 + {0}]

⇒ 22 + [-77]

⇒ 22 - 77 = -55

∴ The simplified value of the equation is -55.

8.Calculation:

570 × 25% + 480 × 60% - 318 × 32% = ?

Let the unknown number be x.

⇒ 570 × 2510025100 + 480 × 6010060100 - 318 × 3210032100 = x

⇒ 142.5 + 288 - 101.76 = X

⇒ x = 430.5 - 101.76 = 328.74 ≈ 329

∴ 570 × 25% + 480 × 60% - 318 × 32% ≈ 329

9. Let, ?% = x%

x% of 145 + 12.5% of 125 = 22 × 22

⇒ x of 145/100 + 1/8 of 125 = 22 × 22

⇒ 145x/100 = 88 - 1/8 of 125

⇒ 29x/20 = 88 - 125/8

⇒ 29x/20 = 579/8

⇒ 29x/5 = 579/2

⇒ x = 579/2 × 5/29 = 49.9137 ≈ 49.91

10. ⇒ 12846 × 593 + 12846 × 417

⇒ 12846 (593 + 417)

⇒ 12846 × 1010

⇒ 12974460

11. {20 – (25 – 33)} ÷ {- 5 × 4 – (- 6)} + 56 ÷ (- 27 + 13)

⇒ {20 – (–8)} ÷ {- 5 × 4 + 6)} + 56 ÷ (- 14)

⇒ {20 + 8} ÷ {- 20 + 6} + 56 ÷ (-14)

⇒ {28} ÷ {- 14} + 56 ÷ (-14)

⇒ −2 – 4

⇒ −6

12.

⇒ 11 + 11 ÷ 11 × 11 – 11 + 11 ÷ 11 × 11 – 11 + 11 = ?

⇒ 11 + 1 × 11 – 11 + 1 × 11 – 11 + 11 = ?

⇒ 11 + 11 – 11 + 11 – 11 + 11 = ?

⇒ 11 + 11 = ?

⇒ ? = 22

∴ The value of ? is 22.

13. 3.2 + (0.56 ÷ 1.4 × 4) – 5 × 5 ÷ 25 + 5

⇒ 3.2 + (2/5 × 4) – 5 × 5/25 + 5

⇒ 3.2 + 8/5 – 1 + 5

⇒ 9.8 – 1

⇒ 8.8

14. ? = 78 + [-4 + (-3) of {27 + (-18 + (-2))}]

⇒ ? = 78 + [-4 + (-3) of {27 + (-20)}]

⇒ ? = 78 + [-4 + (-3) of {27 - 20}]

⇒ ? = 78 + [-4 + (-3) of 7]

⇒ ? = 78 + [-4 - 21] = 78 - 25 = 53

15. 3140 – 55 × 1422 ÷ 79 = ? × 22 + 1428 ÷ 8.4

Applying the BODMAS Rule;

$\Rightarrow 3140 - 55 \times 18 = 22 \times ? + 170$

$\Rightarrow 3140 - 990 = 22 \times ? + 170$

$\Rightarrow 22 \times ? = 1980$

$\therefore ? = 90$