

EXERCISE 1C

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Evaluate:

1. $18 - (20 - 15 \div 3)$

Solution:

$$18 - (20 - 15 \div 3)$$

It can be written as

$$= 18 - (20 - 15/3)$$

By further calculation

$$= 18 - (20 - 5)$$

$$= 18 - 20 + 5$$

So we get

$$= 18 + 5 - 20$$

$$= 23 - 20$$

$$= 3$$

2. $-15 + 24 \div (15 - 13)$

Solution:

$$-15 + 24 \div (15 - 13)$$

It can be written as

$$= -15 + 24 \div 2$$

So we get

$$= -15 + 12$$

$$= -3$$

3. $35 - \{15 + 14 - (13 + \overline{2 - 1 + 3})\}$

Solution:

$$35 - \{15 + 14 - (13 + \overline{2 - 1 + 3})\}$$

It can be written as

$$= 35 - [15 + 14 - (13 + 4)]$$

By further calculation

$$= 35 - [15 + 14 - 17]$$

Multiplying the negative sign

$$= 35 - 15 - 14 + 17$$

So we get

$$= 52 - 29$$

$$= 23$$

4. $27 - \{13 + 4 - (8 + 4 - \overline{1 + 3})\}$

Solution:

$$27 - \{13 + 4 - (8 + 4 - \overline{1 + 3})\}$$

It can be written as

$$= 27 - \{13 + 4 - (8 + 4 - 4)\}$$

By further calculation

$$= 27 - \{13 + 4 - 8\}$$

So we get

$$\begin{aligned} &= 27 - \{13 + (-4)\} \\ &= 27 - 9 \\ &= 18 \end{aligned}$$

5. $32 - [43 - \{51 - (20 - \overline{18 - 7})\}]$

Solution:

$$32 - [43 - \{51 - (20 - \overline{18 - 7})\}]$$

It can be written as

$$= 32 - [43 - \{51 - (20 - 11)\}]$$

By further calculation

$$= 32 - [43 - \{51 - 9\}]$$

So we get

$$= 32 - [43 - 42]$$

$$= 32 - 1$$

$$= 31$$

6. $46 - [26 - \{14 - (15 - 4 \div 2 \times 2)\}]$

Solution:

$$46 - [26 - \{14 - (15 - 4 \div 2 \times 2)\}]$$

It can be written as

$$= 46 - [26 - \{14 - (15 - 2 \times 2)\}]$$

By further calculation

$$= 46 - [26 - \{14 - (15 - 4)\}]$$

So we get

$$= 46 - [26 - \{14 - 11\}]$$

$$= 46 - [26 - 3]$$

Here

$$= 46 - 23$$

$$= 23$$

7. $45 - [38 - \{60 \div 3 - (6 - 9 \div 3) \div 3\}]$

Solution:

$$45 - [38 - \{60 \div 3 - (6 - 9 \div 3) \div 3\}]$$

It can be written as

$$= 45 - [38 - \{60 \div 3 - (6 - 3) \div 3\}]$$

By further calculation

$$= 45 - [38 - \{20 - 3 \div 3\}]$$

So we get

$$= 45 - [38 - \{20 - 1\}]$$

By subtraction

$$= 45 - [38 - 19]$$

$$= 45 - 19$$

$$= 26$$

8. $17 - [17 - \{17 - (17 - \overline{17 - 17})\}]$

Solution:

$$17 - [17 - \{17 - (17 - \overline{17 - 17})\}]$$

It can be written as

$$= 17 - [17 - \{17 - (17 - 0)\}]$$

By further calculation

$$= 17 - [17 - \{17 - 17\}]$$

So we get

$$= 17 - [17 - 0]$$

$$= 17 - 17$$

$$= 0$$

9. $2550 - [510 - \{270 - (90 - \overline{80 + 7})\}]$

Solution:

$$2550 - [510 - \{270 - (90 - \overline{80 + 7})\}]$$

It can be written as

$$= 2550 - [510 - \{270 - (90 - 87)\}]$$

By further calculation

$$= 2550 - [510 - \{270 - 3\}]$$

So we get

$$= 2550 - [510 - 267]$$

$$= 2550 - 243$$

$$= 2307$$

10. $30 + \{[-2 \times (25 - \overline{13 - 3})]\}$

Solution:

$$30 + \{[-2 \times (25 - \overline{13 - 3})]\}$$

It can be written as

$$= 30 + \{[-2 \times (25 - 10)]\}$$

By further calculation

$$= 30 + \{[-2 \times 15]\}$$

So we get

$$= 30 + [-30]$$

$$= 30 - 30$$

$$= 0$$

11. $88 - \{5 - (-48) \div (-16)\}$

Solution:

$$88 - \{5 - (-48) \div (-16)\}$$

It can be written as

$$= 88 - \{5 - (-48 \div -16)\}$$

By further calculation

$$= 88 - \{5 - 3\}$$

So we get

$$= 88 - 2$$

$$= 86$$

12. $9 \times (8 - \overline{3 + 2}) - 2(2 + \overline{3 + 3})$

Solution:

$$9 \times (8 - \overline{3 + 2}) - 2(2 + \overline{3 + 3})$$

It can be written as

$$= 9 \times (8 - 5) - 2(2 + 6)$$

By further calculation

$$= 9 \times 3 - 2 \times 8$$

So we get

$$= 27 - 16$$

$$= 11$$

13. $2 - [3 - \{6 - (5 - \overline{4 - 3})\}]$

Solution:

$$2 - [3 - \{6 - (5 - \overline{4 - 3})\}]$$

It can be written as

$$= 2 - [3 - \{6 - (5 - 1)\}]$$

By further calculation

$$= 2 - [3 - \{6 - 4\}]$$

So we get

$$= 2 - [3 - 2]$$

$$= 2 - 1$$

$$= 1$$

