Exercise 6A

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1.

Solution

The given expression

= 21 – 12 ÷ 3 × 2

= 21 – 4 × 2 (by performing division)

= 21 – 8 (by performing multiplication)

= 13 (by performing subtraction)

Hence, 21 – 12 ÷ 3 × 2 = 13

2.

Solution

The given expression

= 16 + 8 ÷ 4 – 2 × 3

= 16 + 2 – 2 × 3 (by performing division)

= 16 +2 – 6 (by performing multiplication)

= 18 – 6 (by performing addition)

= 12 (by performing subtraction)

Hence, 16 + 8 ÷ 4 – 2 × 3 = 12

3.

Solution

The given Expression is

= 13 – (12 – 6 ÷ 3) (by performing division)

= 13 – (12 – 2) (by performing subtraction)

= 13 – (10) (by performing subtraction)

= 13 – 10

= 3

Hence, 13 – (12 – 6 ÷ 3) = 3

4.

Solution

The given expression is

= 19 – [4 + {16 – (12 – 2)}]

= 19 – [4 + {16 – 10}] (by removing parentheses)

= 19 – [4 + 6] (by removing braces)

= 19 – 10 (by removing brackets)

= 9

Hence, 19 – [4 + {16 – (12 – 2)}] = 9

5.

Solution

The given expression is

= 36 – [18 – {14 – (15 – 4 ÷ 2 × 2)}]

= 36 – [18 – {14 – (15 – 2 ×2)}] (by performing division)

= 36 – [18 – {14 – (15 – 4)}] (by performing multiplication)

= 36 – [18 – {14 – 11}] (by removing parentheses)

= 36 – [18 – 3] (by removing braces)

= 36 – 15 (by removing square brackets)

= 21

Hence, 36 – [18 – {14 – (15 – 4 ÷ 2 × 2)}] = 21

6. $27 - \left[18 - \left\{16 - \left(5 - \overline{4-1}\right)\right\}\right]$

Solution

The given expression is

$= 27 - \left[18 - \left\{16 - \left(5 - \overline{4-1}\right)\right\}\right]$

= 27 – [18 – {16 – (5 – 3)}] (by removing bar or vinculum)

= 27 – [18 – {16 – 2}] (by removing round brackets)

= 27 – [18 – 14] (by removing curly brackets)

= 27 – 4 (by removing square brackets)

= 23

Hence, $27 - \left[18 - \left\{16 - \left(5 - \overline{4-1}\right)\right\}\right] = 23$

7. $4\frac{4}{5} \div \frac{3}{5} of 5 + \frac{4}{5} \times \frac{3}{10} - \frac{1}{5}$

Solution

The given expression is

$= 4\frac{4}{5} \div \frac{3}{5} of 5 + \frac{4}{5} \times \frac{3}{10} - \frac{1}{5}$

$= 4\frac{4}{5} \div \frac{3}{5} \times \frac{5}{1} + \frac{4}{5} \times \frac{3}{10} - \frac{1}{5}$ (by removing 'of ')

= 24 / 5 ÷ 3 /1 + 4/5 × 3/10 – 1/5 (by removing multiplication)

= 24 / 5 × 1/3 + 4 / 5 × 3 /10 – 1 / 5 (by removing '÷ ')

= 24 / 15 + 4 /5 × 3/10 – 1/5 (by multiplying)

= 8 / 5 + 4 /5 × 3 /10 – 1 /5

= 8 / 5 + 12 / 50 – 1 /5 (by removing '×')

= 8 / 5 + 6 / 25 – 1 / 5

= (40 + 6 – 5) / 25

= (46 – 5) / 25

25	41	1
	25	
	16	

= 41 / 25

$= 1\frac{16}{25}$

Exercise 6B

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OBJECTIVE QUESTIONS

1.

Solution

Given

$8 + 4 \div 2 \times 5$

$= 8 + 2 \times 5$ (by dividing)

$= 8 + 10$ (by multiplying)

$= 18$

$\therefore 8 + 4 \div 2 \times 5 = 18$

2.

Solution

Given

$54 \div 3$ of $6 + 9$

$= 54 \div (3 \times 6) + 9$

$= 54 \div (18) + 9$ (by multiplying)

$= 54 \div 18 + 9$

$= 3 + 9$ (by dividing)

$= 12$

$\therefore 54 \div 3$ of $6 + 9 = 12$

3.

Solution

Given

$13 - (12 - 6 \div 3)$

$= 13 - (12 - 2)$ (by dividing)

$= 13 - 10$ (by subtracting)

$= 3$

$\therefore 13 - (12 - 6 \div 3) = 3$

4.

Solution

Given

$1001 \div 11$ of 13

= 1001 ÷ 11 × 13

= 1001 ÷ 143

= 7

∴ 1001 ÷ 11 of 13 = 7

5.

Solution

Given

133 + 28 ÷ 7 – 8 × 2

= 133 + 4 – 8 × 2 (by division)

= 133 + 4 – 16 (by multiplication)

= 137 – 16 (by addition)

= 121

∴ 133 + 28 ÷ 7 – 8 × 2 = 121