

Exercise 6A

Q1

Answer:

Given expression:

 $= 21 - 12 \div 3 \times 2$

 $= 21 - 4 \times 2$ [Performing division]

= 21 - 8 [Performing multiplication]

= 13 [Performing subtraction]

Q2

Answer:

Given expression:

 $= 16 + 8 \div 4 - 2 \times 3$

 $= 16 + 2 - 2 \times 3$ [Performing division]

= 16 + 2 - 6[Performing multiplication]

= 18 - 6 [Performing addition]

= 12 [Performing subtraction]

Q3

Answer:

Given expression:

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

= 13 - (12 - 2) [Performing division]

= 13 - 10 = 3 [Performing subtraction]

Q4

Answer:

Given expression:

= 19 - [4 + {16 - (12 - 2)}]

= 19 - [4 + {16 - 10}]

= 19 - [4 + 6][Removing braces]

= 19 - 10[Removing square brackets]

[Removing parentheses]

= 9

Answer:

Given expression:

= 21

Q6

Answer:

Given expression:

$$\begin{array}{lll} = 27 - [18 - \{16 - (5 - \overline{4 - 1})\}] \\ = 27 - [18 - \{16 - (5 - 3)\}] & [Removing bar] \\ = 27 - [18 - \{16 - 2\}] & [Removing parentheses] \\ = 27 - [18 - 14] & [Removing braces] \\ = 27 - 4 & [Removing square brackets] \\ \end{array}$$

= 23Q7

Answer:

Given expression:

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

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

$$= \frac{24}{5} \div \frac{3}{1} + \frac{4}{5} \times \frac{3}{10} - \frac{1}{5}$$

$$= \frac{24}{5} \times \frac{1}{3} + \frac{4}{5} \times \frac{3}{10} - \frac{1}{5}$$

$$= \frac{8}{5} + \frac{4}{5} \times \frac{3}{10} - \frac{1}{5}$$

$$= \frac{8}{5} + \frac{4}{5} \times \frac{3}{10} - \frac{1}{5}$$

$$= \frac{8}{5} + \frac{6}{25} - \frac{1}{5}$$

$$= \frac{40 + 6 - 5}{25} = \frac{41}{25} = 1\frac{16}{25}$$
(Removing 'x')
(Removing 'x')

Answer:

Given expression:
$$= \left(\frac{2}{3} + \frac{4}{9}\right) \text{ of } \frac{3}{5} \div 1\frac{2}{3} \times 1\frac{1}{4} - \frac{1}{3}$$
 (Removing parentheses)
$$= \left(\frac{6+4}{9}\right) \text{ of } \frac{3}{5} \div 1\frac{2}{3} \times 1\frac{1}{4} - \frac{1}{3}$$
 (Removing 'of')
$$= \frac{10}{9} \times \frac{3}{5} \div 1\frac{2}{3} \times 1\frac{1}{4} - \frac{1}{3}$$
 (Removing 'of')
$$= \frac{2}{3} \div \frac{5}{3} \times 1\frac{1}{4} - \frac{1}{3}$$
 (Removing 'of')
$$= \frac{2}{3} \times \frac{3}{5} \times \frac{5}{4} - \frac{1}{3}$$
 (Removing '\text{.}')
$$= \frac{2}{5} \times \frac{5}{4} - \frac{1}{3}$$
 (Removing '\text{.}')
$$= \frac{1}{2} - \frac{1}{3}$$
 (Removing '\text{.}')
$$= \frac{(3-2)}{6} = \frac{1}{6}$$

Q9

Answer:

The given expression
$$= 7\frac{1}{3} \div \frac{2}{3} \text{ of } 2\frac{1}{5} + 1\frac{3}{8} \div 2\frac{3}{4} - 1\frac{1}{2}$$

$$= \frac{22}{3} \div \frac{2}{3} \text{ of } \frac{11}{5} + \frac{11}{8} \div \frac{11}{4} - \frac{3}{2}$$

$$= \frac{22}{3} \div \frac{2}{3} \times \frac{11}{5} + \frac{11}{8} \div \frac{11}{4} - \frac{3}{2}$$
 (Removing 'of')
$$= \frac{22}{3} \div \frac{22}{15} + \frac{11}{8} \div \frac{11}{4} - \frac{3}{2}$$

$$= \frac{22}{3} \times \frac{15}{22} + \frac{11}{8} \div \frac{11}{4} - \frac{3}{2}$$
 (Removing '÷')
$$= 5 + \frac{11}{8} \times \frac{4}{11} - \frac{3}{2}$$
 (Removing '÷')
$$= 5 + \frac{1}{2} - \frac{3}{2}$$
 (On simplifying)
$$= \frac{10 + 1 - 3}{2} = \frac{8}{2} = 4$$

Q10

Answer:

Given expression:
$$= 5\frac{1}{7} - \left\{3\frac{3}{10} \div \left(2\frac{4}{5} - \frac{7}{10}\right)\right\}$$

$$= \frac{36}{7} - \left\{\frac{33}{10} \div \left(\frac{14}{5} - \frac{7}{10}\right)\right\}$$

$$= \frac{36}{7} - \left\{\frac{33}{10} \div \left(\frac{28-7}{10}\right)\right\}$$

$$= \frac{36}{7} - \left\{\frac{33}{10} \div \frac{21}{10}\right\}$$
 (Removing parentheses)
$$= \frac{36}{7} - \left\{\frac{33}{10} \times \frac{10}{21}\right\}$$
 (Removing braces)
$$= \frac{36}{7} - \frac{11}{7}$$
 (Removing braces)
$$= \frac{36-11}{7} = \frac{25}{7} = 3\frac{4}{7}$$
 (Simplifying)

Q11

Answer:

Given expression:
$$= 9\frac{3}{4} \div \left[2\frac{1}{6} + \left\{4\frac{1}{3} - \left(1\frac{1}{2} + 1\frac{3}{4}\right)\right\}\right]$$

$$= \frac{39}{4} \div \left[\frac{13}{6} + \left\{\frac{13}{3} - \left(\frac{3}{2} + \frac{7}{4}\right)\right\}\right]$$

$$= \frac{39}{4} \div \left[\frac{13}{6} + \left\{\frac{13}{3} - \left(\frac{6+7}{4}\right)\right\}\right]$$

$$= \frac{39}{4} \div \left[\frac{13}{6} + \left\{\frac{13}{3} - \frac{13}{4}\right\}\right]$$
 (Removing parentheses)
$$= \frac{39}{4} \div \left[\frac{1}{6} + \left\{\frac{52 - 39}{12}\right\}\right]$$

$$= \frac{39}{4} \div \left[\frac{13}{6} + \frac{13}{12}\right]$$
 (Removing braces)
$$= \frac{39}{4} \div \left[\frac{26 + 13}{12}\right]$$

$$= \frac{39}{4} \div \frac{39}{12}$$
 (Removing square brackets)
$$= \frac{39}{4} \times \frac{39}{12}$$
 (Removing '÷')

******* END ********