

Exercise 4C

$$\begin{aligned} &\frac{-3\times40}{1\times40} = \frac{-120}{40} \\ &\frac{1\times5}{8\times5} = \frac{5}{40} \\ &\frac{-2\times8}{5\times8} = \frac{-16}{40} \\ &\text{Now, } \frac{\left(-120\right)}{40} + \frac{5}{40} + \frac{\left(-16\right)}{40} \\ &= \frac{-120+5-16}{40} \\ &= \frac{-136+5}{40} = \frac{-131}{40} \end{aligned}$$

$$\left(vi\right) \frac{-13}{8} + \frac{5}{16} + \frac{-1}{4}$$

 $(vi) \frac{-13}{8} + \frac{5}{16} + \frac{-1}{4}$ L.C.M. of the denominator 8, 16 and 4 is 16.

$$\frac{-13\times2}{8\times2} = \frac{-26}{16}$$

$$\frac{5\times1}{16\times1} = \frac{5}{16}$$

$$\frac{-1\times4}{4\times4} = \frac{-4}{16}$$

$$\begin{aligned} &\frac{-1\times4}{4\times4} = \frac{-4}{16} \\ &\text{Now}, \frac{(-26)}{16} + \frac{5}{16} + \frac{(-4)}{16} \\ &= \frac{-26+5-4}{16} \end{aligned}$$

Now,
$$\frac{-30+5}{16} = \frac{-25}{16}$$

Q4.

Answer:

(i)
$$\frac{-8}{15} + \frac{2}{-3}$$

We need a positive denominator.

2	8,16,4
2	4,8,2
2	2,4,1
2	1,2,1
	1,1,1

$$\therefore \frac{2}{3} \times \frac{-1}{1} = \frac{-3}{3}$$

 $\therefore \frac{2}{-3} \times \frac{-1}{-1} = \frac{-2}{3}$ Now, L.C.M. of 15 and 3 is 15.

$$\frac{-8}{15} = \frac{-8 \times 1}{15 \times 1} = \frac{-8}{15}$$

$$\frac{-2}{3} = \frac{-2 \times 5}{3 \times 5} = \frac{-10}{15}$$

Now,
$$\frac{-8}{15} + \frac{-10}{15}$$

= $\frac{-8-10}{15}$

$$=\frac{-8-10}{15}$$

$$= \frac{-18}{15} \\
= \frac{-6}{5}$$

(ii)
$$\frac{-7}{10} + \frac{13}{-15} + \frac{27}{20}$$

We need a positive denominator.

$$\frac{13}{-15} \times \frac{-1}{-1} = \frac{-13}{15}$$

Now, L.C.M. of 10, 15 and 20 is 60. $\therefore \frac{-7}{10} = \frac{-7 \times 6}{10 \times 6} = \frac{-42}{60}$

$$\therefore \frac{-7}{10} = \frac{-7 \times 6}{10 \times 6} = \frac{-42}{60}$$

$$\frac{-13}{15} = \frac{-13 \times 4}{15 \times 4} = \frac{-52}{60}$$

$$\frac{27}{20} = \frac{27 \times 3}{20 \times 3} = \frac{81}{60}$$

Now,
$$\frac{-42}{60} + \frac{-52}{60} + \frac{81}{60}$$

= $\frac{(-42) + (-52) + (81)}{60}$
= $\frac{-94 + 81}{60}$

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