Exercise 1H

Q2

Answer :

(b) $\frac{-28}{15}$

$\frac{8}{-15} = \frac{-8}{15}$ and $\frac{4}{-3} = \frac{-4}{3}$

Now, we have:

$$\left(\frac{8}{-15} + \frac{4}{-3}\right) = \left(\frac{-8}{15} + \frac{-4}{3}\right)$$

LCM of 15 and 3 is $(3 \times 5 \times 1)$, **that is,** 15

$$\begin{aligned}\frac{-8}{15} + \frac{-4}{3} &= \frac{1\times(-8)+5\times(-4)}{15} \\ &= \frac{(-8)+(-20)}{15} \\ &= \frac{-28}{15}\end{aligned}$$

Q3

Answer :

$$\frac{7}{-26} = \frac{-7}{26}$$

Now, we have:

$$\left(\frac{7}{-26} + \frac{16}{39}\right) = \left(\frac{-7}{26} + \frac{16}{39}\right)$$

LCM of 26 and 39 is 1014, that is, $(29 \times 1 \times 36)$.

(a) $\frac{11}{78}$

$$\begin{aligned}\left(\frac{-7}{26} + \frac{16}{39}\right) &= \frac{39\times(-7)+26\times16}{1014} \\ &= \frac{(-273)+416}{1014} \\ &= \frac{143}{1014} \\ &= \frac{11}{78}\end{aligned}$$

Q4

Answer :

(b) $\frac{16}{7}$

$3 = \frac{3}{1}$ and $\frac{5}{-7} = \frac{-5}{7}$

Now, we have:

$$\left(3 + \frac{5}{-7}\right) = \left(\frac{3}{1} + \frac{-5}{7}\right)$$

LCM of 1 and 7 is 7

$$\left(\frac{3}{1} + \frac{-5}{7}\right) = \frac{7\times3+1\times(-5)}{7}$$

$$= \frac{21+(-5)}{7}$$

$$= \frac{16}{7}$$

Q5

Q5.

Answer :

(d) $\frac{-67}{8}$

$\frac{31}{-4} = \frac{-31}{4}$

We have:

$$\left(\frac{31}{-4} + \frac{-5}{8}\right) = \left(\frac{-31}{4} + \frac{-5}{8}\right)$$

LCM of 4 and 8 is 8, that is, $(4 \times 1 \times 2)$.

$$\left(\frac{-31}{4} + \frac{-5}{8}\right) = \frac{2\times(-31)+1\times(-5)}{8}$$

$$= \frac{(-62)+(-5)}{8}$$

$$= \frac{-67}{8}$$

Q6

Answer :

(b) $\frac{-17}{20}$

Let the required number be x.

Now,

$$\frac{7}{12} + x = \frac{-4}{15}$$

$$\Rightarrow x = \left(\frac{-4}{15} + \frac{-7}{12}\right)$$

$$= \frac{4\times(-4)+5\times(-7)}{60}$$

$$= \frac{(-16)+(-35)}{60}$$

$$= \frac{-51}{60}$$

$$= \frac{-17}{20}$$

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