



Exercise 1H

Q7

Answer :

(c) $-\frac{13}{60}$

Using the commutative and associative laws, we can arrange the terms in any suitable manner. Using this rearrangement property, we have:

$$\begin{aligned}\frac{2}{3} + \frac{-4}{5} + \frac{7}{15} + \frac{-11}{20} &= \left(\frac{2}{3} + \frac{7}{15}\right) + \left(\frac{-4}{5} + \frac{-11}{20}\right) \\ &= \frac{(10+7)}{15} + \frac{[(-16)+(-11)]}{20} \\ &= \left(\frac{17}{15} + \frac{-27}{20}\right) \\ &= \frac{[68+(-81)]}{60} \\ &= \frac{-13}{60}\end{aligned}$$

Q8

Answer :

(b) $\frac{11}{3}$

Let the other number be x .

Now,

$$\begin{aligned}x + (-5) &= \frac{-4}{3} \\ \Rightarrow x &= \frac{-4}{3} + (\text{Additive inverse of } -5) \\ \Rightarrow x &= \frac{-4}{3} + 5\end{aligned}$$

$$\begin{aligned}&= \frac{-4}{3} + \frac{5}{1} \\ &= \frac{(-4)+15}{3} \\ &= \frac{11}{3}\end{aligned}$$

Q9

Answer :

(c) $\frac{1}{21}$

Let the required number be x .

Now,

$$\begin{aligned}\frac{-5}{7} + x &= \frac{-2}{3} \\ \Rightarrow x &= \frac{-2}{3} + \left(\text{Additive inverse of } \frac{-5}{7} \right) \\ \Rightarrow x &= \left(\frac{-2}{3} + \frac{5}{7} \right) \\ &= \frac{(-14) + 15}{21} \\ &= \frac{1}{21}\end{aligned}$$

Q10

Answer :

(d) $\frac{-5}{2}$

Let the required number be x .

Now,

$$\frac{-5}{3} - x = \frac{5}{6}$$
$$\Rightarrow x = \left(\frac{-5}{3} - \frac{5}{6} \right)$$

$$= \frac{-10-5}{6}$$

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

$$= \frac{-5}{2}$$

Thus, the required number is $\frac{-5}{2}$

Q11

Answer :

(b) $\frac{-7}{3}$

$$\left(-\frac{3}{7} \right)^{-1} \Rightarrow \text{Reciprocal of } \frac{-3}{7}$$

The reciprocal of $\frac{-3}{7}$ is $\frac{7}{-3}$, i.e., $\frac{-7}{3}$

Q12

Answer :

(a) $\frac{-2}{3}$

Let the other number be x .

Now,

$$x \times \frac{14}{27} = \frac{-28}{81}$$

$$\Rightarrow x = \frac{-28}{81} \div \frac{14}{27}$$

$$= \frac{-28}{81} \times \frac{27}{14}$$

$$= \frac{(-28) \times 27}{81 \times 14}$$

$$= \frac{-(28 \times 27)}{81 \times 14}$$

$$= \frac{-(2 \times 3)}{9 \times 1}$$

$$= \frac{-6}{9}$$

$$= \frac{-2}{3}$$

Thus, the other number is $\frac{-2}{3}$

***** END *****