Exercise 1H

Q13

Answer :

(c) $\frac{32}{75}$

Let the other number be x.

Now,

$$x \times \frac{-15}{4} = \frac{-16}{35}$$

$$\Rightarrow x = \frac{-16}{35} \div \frac{-15}{14}$$

$$= \frac{-16}{35} \times \frac{14}{-15}$$

$$= \frac{-(16 \times 14)}{-(35 \times 15)}$$

$$= \frac{16 \times 14}{35 \times 15} = \frac{224}{525} = \frac{32}{75}$$

Thus, the other number is $\frac{32}{75}$

Q14

Answer :

(d) $\frac{7}{5}$

Let the required number be x.

Now,

$$-\frac{3}{5}-x=-2$$

$$\Rightarrow -\frac{3}{5}=-2+x$$

$$\Rightarrow x=\left(-\frac{3}{5}+2\right)$$

$$\Rightarrow x=\frac{(-3+10)}{5}$$

$$\Rightarrow x=\frac{7}{5}$$

Thus, the required number is $\frac{7}{5}$

Q15

Answer :

(c) $\frac{1}{3}$

Let the other number be x.

Now,

$$x + \left(-\frac{10}{3}\right) = -3$$

$$\Rightarrow x = -3 + \left(\text{Additive inverse of } -\frac{10}{3}\right)$$

$$\Rightarrow x = \left(-3 + \frac{10}{3}\right)$$

$$= \frac{-3}{1} + \frac{10}{3}$$

$$= \frac{(-9+10)}{3}$$

$$= \frac{1}{3}$$

Thus, the other number is $\frac{1}{3}$

Q16

Answer :

(b) $\frac{-49}{71}$ and (c) $\frac{-9}{16}$

The numbers $\frac{-49}{71}$ and $\frac{-9}{16}$ are in the standard form because they have no common divisor other than 1 and their denominators are positive.

Q17

Answer :

(a) $\frac{-3}{10}$

$$\left(\frac{-9}{16} \times \frac{8}{15}\right) = \frac{-9 \times 8}{16 \times 15}$$

$$= \frac{-72}{240}$$

$$= \frac{-3}{10}$$

Q18

Answer :

(d) $\frac{-5}{6}$

$$\frac{-5}{9} \div \frac{2}{3} = \frac{-5}{9} \times \frac{3}{2}$$

$$= \frac{-5 \times 3}{9 \times 2}$$

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

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

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