Exercise 1D

Q1

Answer :

(i)

$$\frac{3}{5} \times \frac{-7}{8}$$
$$= \frac{3 \times (-7)}{5 \times 8}$$
$$= -\frac{21}{40}$$

(ii)

$$\frac{-9}{2} \times \frac{5}{4}$$
$$= \frac{(-9) \times 5}{2 \times 4}$$
$$= \frac{-45}{8}$$

(iii)

$$\frac{-6}{11} \times \frac{-5}{3}$$
$$= \frac{(-6) \times (-5)}{11 \times 3}$$
$$= \frac{30}{33}$$

Simplifying the above rational number, we get:

$$\frac{30}{33} = \frac{30 \div 3}{33 \div 3} = \frac{10}{11}$$

(iv)

$$\frac{-2}{3} \times \frac{6}{7}$$

$$= \frac{(-2)\times 6}{3\times 7}$$

$$= \frac{-12}{21}$$

Simplifying the above rational number, we get:

$$\frac{-12}{21} = \frac{-12 \div 3}{21 \div 3} = \frac{-4}{7}$$

(v)

$$\frac{-12}{5} \times \frac{10}{-3}$$
$$= \frac{(-12) \times 10}{5 \times (-3)}$$
$$= \frac{-120}{-15}$$
$$= \frac{120}{15}$$

Simplifying the above rational number, we get:

$$\frac{120}{15} = \frac{120 \div 3}{15 \div 3} = \frac{40}{5} = 8$$

(vi)

$$\frac{25}{-9} \times \frac{3}{-10}$$
$$= \frac{25 \times 3}{(-9) \times (-10)}$$
$$= \frac{75}{90}$$

Simplifying the above rational number, we get:

$$\frac{75}{90} = \frac{75 \div 15}{90 \div 15} = \frac{5}{6}$$

(vii)

$$\frac{5}{-18} \times \frac{-9}{20}$$
$$= \frac{5 \times (-9)}{-18 \times 20}$$
$$= \frac{-45}{-360}$$
$$= \frac{45}{360}$$

Simplifying the above rational number, we get:

$$\frac{45}{360} = \frac{45 \div 45}{360 \div 45} = \frac{1}{8}$$

(viii)

$$\frac{-13}{15} \times \frac{-25}{26}$$
$$= \frac{(-13) \times (-25)}{15 \times 26}$$
$$= \frac{325}{390}$$

Simplifying the above rational number, we get:

$$\frac{325}{390} = \frac{325 \div 5}{390 \div 5} = \frac{65}{78} = \frac{65 \div 13}{78 \div 13} = \frac{5}{6}$$

(ix)

$$\frac{16}{-21} \times \frac{14}{5}$$
$$= \frac{16 \times 14}{(-21) \times 5}$$
$$= \frac{224}{-105}$$

Simplifying the above rational number, we get:

$$\frac{224}{-105} = \frac{224 \div 7}{(-105) \div 7} = \frac{32}{-15} = \frac{32 \times -1}{-15 \times -1} = \frac{-32}{15}$$

(x)

$$\frac{-7}{6} \times 24$$
$$= \frac{(-7) \times 24}{6}$$
$$= \frac{-168}{6}$$

Simplifying the above rational number, we get:

$$\frac{-168}{6} = \frac{(-168) \div 2}{6 \div 2} = \frac{84}{3} = \frac{-84 \div 3}{3 \div 3} = -28$$

(xi)

$$\frac{7}{24} \times \left(-48\right)$$

$$= \frac{7 \times \left(-48\right)}{24} = -\frac{336}{24}$$

Simplifying the above rational number, we get:

$$\frac{-336}{24} = \frac{-336 \div 24}{24 \div 24} = -14$$

(xii)

$$\frac{-13}{5} \times \left(-10\right)$$

$$= \frac{\left(-13\right) \times \left(-10\right)}{5}$$

$$= \frac{130}{5}$$

Simplifying the above rational number, we get:

$$\frac{130}{5} = \frac{130 \div 5}{5 \div 5} = 26$$

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