

Fractions Ex 2.3 Q1

Answer:

Reciprocal of a non-zero fraction $\frac{a}{b}$ is $\frac{b}{a}$

(i)

Reciprocal of $\frac{3}{7}$ is $\frac{7}{3}$

It's improper fraction because numerator is greater than denominator

(ii)

Reciprocal of $\frac{5}{8}$ is $\frac{8}{5}$

It's improper fraction because numerator is greater than denominator

(iii)

Reciprocal of $\frac{9}{7}$ is $\frac{7}{9}$

It's proper fraction because numerator is less than denominator

(iv)

Reciprocal of $\frac{6}{5}$ is $\frac{5}{6}$

It's proper fraction because numerator is less than denominator

(v)

Reciprocal of $\frac{12}{7}$ is $\frac{7}{12}$

It's proper fraction because numerator is less than denominator

(vi

Reciprocal of $\frac{1}{8}$ is $\frac{8}{1} = 8$

It is a whole number

Fractions Ex 2.3 Q2

Answer:

(i)
$$\frac{3}{8} \div \frac{5}{9} = \frac{3}{8} \times \frac{9}{5}$$

$$\Rightarrow \frac{3 \times 9}{8 \times 5} \Leftrightarrow \frac{27}{40}$$

(ii)
$$3\frac{1}{4} \div \frac{2}{3} = \frac{(3\times4)+1}{4} \times \frac{3}{2}$$

$$\Rightarrow \frac{13}{4} \times \frac{3}{2} \Leftrightarrow \frac{39}{8} = 4\frac{7}{8}$$

(iii)
$$\frac{7}{8} \div 4\frac{1}{2} = \frac{7}{8} \div \frac{(4 \times 2) + 1}{2}$$
 $\Rightarrow \frac{7}{4} \times \frac{2}{9}$ $\Rightarrow \frac{7}{4} \times \frac{1}{9} \Leftrightarrow \frac{7}{36}$ (iv) $6\frac{1}{4} \div 2\frac{3}{5} = \frac{(6 \times 4) + 1}{4} \div \frac{(2 \times 5) + 3}{5}$ $\Rightarrow \frac{25}{4} \div \frac{13}{5} = \frac{25}{4} \times \frac{5}{13}$ $\Rightarrow \frac{125}{59} = 2\frac{21}{59}$

Fractions Ex 2.3 Q3

Answer:

$$\frac{3}{8} \div 4 = \frac{3}{8} \times \frac{1}{4}$$
 $= \frac{3}{32}$

(ii)
$$\frac{9}{16} \div 6 = \frac{9}{16} \times \frac{1}{6} = \frac{9^{2}}{16 \times 8^{2}} = \frac{3}{32}$$

(iii)
$$9 \div \frac{3}{16} = \frac{9}{1} \times \frac{16}{3} \Leftrightarrow \frac{\cancel{9}^{\cancel{8}} \times 16}{\cancel{8}}$$

$$= 48$$

(iv)
$$10 \div \frac{100}{3} = \frac{10}{1} \times \frac{3}{100} \Leftrightarrow \frac{\cancel{10} \times 3}{\cancel{100}^{10}}$$

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

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