

Fractions Ex 6.7 Q7

Answer:

(i)
$$\frac{2}{9}$$
, $\frac{7}{9}$, $\frac{3}{9}$, $\frac{4}{9}$, $\frac{1}{9}$, $\frac{6}{9}$, $\frac{5}{9}$

When denominators are the same & numerators are different, then the fraction with greater numerator has a larger value.

(ii)
$$\frac{7}{8}$$
, $\frac{7}{25}$, $\frac{7}{11}$, $\frac{7}{18}$, $\frac{7}{10}$

When numerators are the same & denominators are different, then the fraction with smaller denominator has a smaller value.

$$\frac{7}{25} < \frac{7}{18} < \frac{7}{11} < \frac{7}{10} < \frac{7}{8}$$

(iii)
$$\frac{37}{47}$$
, $\frac{37}{50}$, $\frac{37}{100}$, $\frac{37}{1000}$, $\frac{37}{85}$, $\frac{37}{41}$

When numerators are the same & denominators are different, then the fraction with greater denominator has a smaller value.

$$\frac{37}{1000} < \frac{37}{100} < \frac{37}{85} < \frac{37}{50} < \frac{37}{47} < \frac{37}{41}$$

(iv)
$$\frac{3}{5}$$
, $\frac{1}{5}$, $\frac{4}{5}$, $\frac{2}{5}$

When denominators are the same & numerators are different, then the fraction with greater numerator has a larger value.

$$\frac{1}{5} < \frac{2}{5} < \frac{3}{5} < \frac{4}{5}$$

LCM of 2, 4 and 5 is 20.

$$\frac{2}{5} = \frac{2}{5} \times \frac{4}{4} = \frac{8}{20}$$

$$\frac{3}{4} = \frac{3}{4} \times \frac{5}{5} = \frac{15}{20}$$

$$\frac{1}{2} = \frac{1}{2} \times \frac{10}{10} = \frac{10}{20}$$

$$\frac{3}{5} = \frac{3}{5} \times \frac{4}{4} = \frac{12}{20}$$

$$\begin{array}{l} \frac{2}{5} < \frac{1}{2} < \frac{3}{5} < \frac{3}{4} \\ \text{(VI)} \\ \frac{3}{8}, \frac{3}{12}, \frac{3}{6}, \frac{3}{4} \end{array}$$

$$\frac{3}{8}$$
, $\frac{3}{12}$, $\frac{3}{6}$, $\frac{3}{4}$

When numerators are the same & denominators are different, then the fraction with smaller denominator has a greater value.

$$\frac{3}{12} < \frac{3}{8} < \frac{3}{6} < \frac{3}{4}$$

$$\frac{4+2}{6+2} = \frac{2}{3}$$
 (Dividing the numerator & denominator by the HCF of 4 & 6)

 $\frac{6}{12} = \frac{1}{2}$ (Dividing the numerator & denominator by the HCF of 6 & 12)

LCM of 2, 8, 3 and 16 is 48.

$$\frac{4}{6} = \frac{2}{3} \times \frac{16}{16} = \frac{32}{48}$$

$$\frac{6}{12} = \frac{1}{2} \times \frac{24}{24} = \frac{24}{48}$$

$$\frac{3}{8} = \frac{3}{8} \times \frac{6}{6} = \frac{18}{48}$$

$$\frac{5}{16} = \frac{5}{16} \times \frac{3}{3} = \frac{15}{48}$$

When denominators are the same & numerators are different, then the fraction with greater numerator has a greater value.

$$\tfrac{5}{16} < \tfrac{3}{8} < \tfrac{6}{12} < \tfrac{4}{6}$$