



Exercise 5G

(b) $\frac{4}{5}$

Among the given fractions with the same numerator, the one with the smallest denominator is the greatest.

Q12

Answer :

(a) $\frac{6}{11}$

Among like fractions, the fraction with the smallest numerator is the smallest.

Q13

Answer :

(d) $\frac{7}{12}$

Explanation:

$$\begin{array}{r}
 2 \mid 4, 6, 12, 3 \\
 \hline
 2 \mid 2, 3, 6, 3 \\
 \hline
 3 \mid 1, 3, 3, 3 \\
 \hline
 \mid 1, 1, 1, 1 \\
 \hline
 \end{array}$$

L.C.M. of 4, 6, 12 and 3 = $(2 \times 2 \times 3) = 12$

Thus, we have:

$$\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$$

$$\frac{5}{6} = \frac{5 \times 2}{6 \times 2} = \frac{10}{12}$$

$$\frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12}$$

$$\frac{7}{12}$$

Clearly, $\frac{7}{12}$ is the smallest fraction.

Q14

Answer :

(b) $\frac{23}{5}$

Q15

Answer :

(c) $4\frac{6}{7}$

On dividing 34 by 7:

Quotient = 4

Remainder = 6

$$\frac{34}{7} = 4 + \frac{6}{7} = 4\frac{6}{7}$$

Q16

Answer :

(b) $\frac{3}{4}$

Explanation:

Addition of like fractions = Sum of the numerators / Common denominator

$$= \frac{5}{8} + \frac{1}{8} = \frac{(5+1)}{8} = \frac{\cancel{8}^2}{\cancel{8}_4} = \frac{3}{4}$$

Q17

Answer :

(b) $\frac{1}{2}$

Explanation:

$$\frac{5}{8} - \frac{1}{8} = \frac{(5-1)}{8} = \frac{\cancel{4}^1}{\cancel{8}_2} = \frac{1}{2}$$

Q18

Answer :

(a) $1\frac{1}{2}$

Explanation :

$$\begin{aligned}
& 3\frac{3}{4} - 2\frac{1}{4} \\
& \Rightarrow \frac{15}{4} - \frac{9}{4} \\
& \Rightarrow \frac{(15-9)}{4} \\
& \Rightarrow \frac{6}{4} = \frac{3}{2} = 1\frac{1}{2}
\end{aligned}$$

Q19

Answer :

(d) $1\frac{1}{18}$

Explanation:

$$\begin{array}{r}
3 \mid 3, 6, 9 \\
\hline
2 \mid 1, 2, 3 \\
\hline
3 \mid 1, 1, 3 \\
\mid 1, 1, 1 \\
\hline
\end{array}$$

$$\begin{aligned}
& \frac{5}{6} + \frac{2}{3} - \frac{4}{9} \quad \left(\text{L.C.M. of 3, 6 and 9} = (2 \times 3 \times 3) = 18 \right) \\
& = \frac{(15+12-8)}{18} \\
& \{ [18 \div 6 = 3, 3 \times 5 = 15], [18 \div 3 = 6, 6 \times 2 = 12] \text{ and } [18 \div 9 = 2, 2 \times 4 = 8] \} \\
& = \frac{(27-8)}{18} = \frac{19}{18} = 1\frac{1}{18}
\end{aligned}$$

Q20

Answer :

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

Explanation:

Let us compare $3\frac{1}{3}$ and $\frac{33}{10}$ or $\frac{10}{3}$ and $\frac{33}{10}$.

$10 \times 10 = 100$ and $3 \times 33 = 99$

Clearly, $100 > 99$

$$\therefore \frac{10}{3} > \frac{33}{10} \text{ or } 3\frac{1}{3} > \frac{33}{10}$$

***** END *****