



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019

CLASS – IV TERM – SECOND SUBJECT- ARITHMETIC ANSWER WORKSHEET – 14 TOPIC – FRACTIONS DATE – 08.06.2020

1. Subtract and reduce to the lowest forms.

$$\begin{aligned} \text{a) } & \frac{5}{6} - \frac{2}{3} \\ &= \frac{5 \times 3}{6 \times 3} - \frac{2 \times 6}{3 \times 6} \\ &= \frac{15}{18} - \frac{12}{18} \\ &= \frac{15 - 12}{18} \\ &= \frac{3}{18} \end{aligned}$$

H. C. F. of 3 and 18 is 3

$$\frac{3}{18} = \frac{3 \div 3}{18 \div 3} = \frac{1}{6}$$

Hence, $\frac{1}{6}$ is the lowest form of $\frac{3}{18}$

$$\begin{aligned} \text{b) } & \frac{4}{7} - \frac{3}{6} \\ &= \frac{4 \times 6}{7 \times 6} - \frac{3 \times 7}{6 \times 7} \\ &= \frac{24}{42} - \frac{21}{42} \\ &= \frac{24 - 21}{42} \\ &= \frac{3}{42} \end{aligned}$$

H. C. F. of 3 and 42 is 3

$$\frac{3}{42} = \frac{3 \div 3}{42 \div 3} = \frac{1}{14}$$

Hence, $\frac{1}{14}$ is the lowest form of $\frac{3}{42}$

2. Solve:-

$$\begin{aligned} \text{a) } & 1\frac{3}{4} + 2\frac{2}{5} \\ &= \frac{4 \times 1 + 3}{4} + \frac{5 \times 2 + 2}{5} \\ &= \frac{7}{4} + \frac{12}{5} \\ &= \frac{7 \times 5}{4 \times 5} + \frac{12 \times 4}{5 \times 4} \\ &= \frac{35}{20} + \frac{48}{20} \\ &= \frac{35 + 48}{20} \\ &= \frac{83}{20} \\ &= 4\frac{3}{20} \end{aligned}$$

Ans. $4\frac{3}{20}$

$$\begin{aligned}
\text{b) } & 5\frac{2}{3} + 2\frac{3}{4} \\
&= \frac{3 \times 5 + 2}{3} + \frac{4 \times 2 + 3}{4} \\
&= \frac{17}{3} + \frac{11}{4} \\
&= \frac{17 \times 4}{3 \times 4} + \frac{11 \times 3}{4 \times 3} \\
&= \frac{68}{12} + \frac{33}{12} \\
&= \frac{68+33}{12} \\
&= \frac{101}{12} \\
&= 8\frac{5}{12}
\end{aligned}$$

Ans. $8\frac{5}{12}$

3. Add the following unlike fractions.

$$\begin{aligned}
\text{a) } & \frac{3}{8} + \frac{4}{7} \\
&= \frac{3 \times 7}{8 \times 7} + \frac{4 \times 8}{7 \times 8} \\
&= \frac{21}{56} + \frac{32}{56} \\
&= \frac{21+32}{56} \\
&= \frac{53}{56}
\end{aligned}$$

Ans. $\frac{53}{56}$

$$\begin{aligned}
\text{b) } & \frac{2}{8} + \frac{3}{9} \\
&= \frac{2 \times 9}{8 \times 9} + \frac{3 \times 8}{9 \times 8} \\
&= \frac{18}{72} + \frac{24}{72} \\
&= \frac{18+24}{72} \\
&= \frac{42}{72}
\end{aligned}$$

Ans. $\frac{42}{72}$

4. Subtract the following unlike fractions.

$$\begin{aligned}
\text{a) } & \frac{8}{9} - \frac{6}{7} \\
&= \frac{8 \times 7}{9 \times 7} - \frac{6 \times 9}{7 \times 9} \\
&= \frac{56}{63} - \frac{54}{63} \\
&= \frac{56 - 54}{63} \\
&= \frac{2}{63}
\end{aligned}$$

Ans. $\frac{2}{63}$

$$\begin{aligned}
 \text{b) } & \frac{7}{9} - \frac{5}{12} \\
 &= \frac{7 \times 12}{9 \times 12} - \frac{5 \times 9}{12 \times 9} \\
 &= \frac{84}{108} - \frac{45}{108} \\
 &= \frac{84 - 45}{108} \\
 &= \frac{39}{108}
 \end{aligned}$$

$$\text{Ans. } \frac{39}{108}$$

5. Add and reduce to the lowest forms.

$$\begin{aligned}
 \text{a) } & \frac{4}{8} + \frac{3}{7} \\
 &= \frac{4 \times 7}{8 \times 7} + \frac{3 \times 8}{7 \times 8} \\
 &= \frac{28}{56} + \frac{24}{56} \\
 &= \frac{28 + 24}{56} \\
 &= \frac{52}{56}
 \end{aligned}$$

H. C. F. of 52 and 56 is 4

$$\frac{52}{56} = \frac{52 \div 4}{56 \div 4} = \frac{13}{14}$$

Hence, $\frac{13}{14}$ is the lowest form of $\frac{52}{56}$

$$\begin{aligned}
 \text{b) } & \frac{3}{5} + \frac{2}{8} \\
 &= \frac{3 \times 8}{5 \times 8} + \frac{2 \times 5}{8 \times 5} \\
 &= \frac{24}{40} + \frac{10}{40} \\
 &= \frac{24 + 10}{40} \\
 &= \frac{34}{40}
 \end{aligned}$$

H. C. F. of 34 and 40 is 2

$$\frac{34}{40} = \frac{34 \div 2}{40 \div 2} = \frac{17}{20}$$

Hence, $\frac{17}{20}$ is the lowest form of $\frac{34}{40}$

6. Add and reduce to the lowest forms.

$$\begin{aligned}
 \text{a) } & \frac{9}{27} + \frac{3}{27} \\
 &= \frac{9 + 3}{27} \\
 &= \frac{12}{27}
 \end{aligned}$$

H. C. F. of 12 and 27 is 3

$$\frac{12}{27} = \frac{12 \div 3}{27 \div 3} = \frac{4}{9}$$

Hence, $\frac{4}{9}$ is the lowest form of $\frac{12}{27}$

$$\begin{aligned} \text{b) } & \frac{7}{32} + \frac{9}{32} \\ & = \frac{7+9}{32} \\ & = \frac{16}{32} \end{aligned}$$

H. C. F. of 16 and 32 is 16

$$\frac{16}{32} = \frac{16 \div 16}{32 \div 16} = \frac{1}{2}$$

Hence, $\frac{1}{2}$ is the lowest form of $\frac{16}{32}$

7. Subtract and reduce to the lowest forms.

$$\begin{aligned} \text{a) } & \frac{9}{15} - \frac{6}{15} \\ & = \frac{9-6}{15} \\ & = \frac{3}{15} \end{aligned}$$

H. C. F. of 3 and 15 is 3

$$\frac{3}{15} = \frac{3 \div 3}{15 \div 3} = \frac{1}{5}$$

Hence, $\frac{1}{5}$ is the lowest form of $\frac{3}{15}$

$$\begin{aligned} \text{b) } & \frac{16}{28} - \frac{8}{28} \\ & = \frac{16-8}{28} \\ & = \frac{8}{28} \end{aligned}$$

H. C. F. of 8 and 28 is 4

$$\frac{8}{28} = \frac{8 \div 4}{28 \div 4} = \frac{2}{7}$$

Hence, $\frac{2}{7}$ is the lowest form of $\frac{8}{28}$

8. Fill in the blanks.

$$\text{a) } \frac{9}{25} - \frac{9}{25} = \underline{0}$$

$$\text{b) } \frac{13}{16} + \frac{2}{16} = \frac{15}{16}$$

$$\text{c) } \frac{1}{17} + \frac{13}{17} = \frac{14}{17}$$

9. Add each pair of fractions and reduce to the lowest form if necessary.

$$\text{a) } \frac{6}{12} + \frac{2}{12} = \frac{8}{12} = \frac{2}{3}$$

$$\text{b) } \frac{3}{20} + \frac{9}{20} = \frac{12}{20} = \frac{3}{5}$$

$$\text{c) } \frac{11}{14} + \frac{1}{14} = \frac{12}{14} = \frac{6}{7}$$