

Solutions

Topic : Addition and subtraction of fractions

$$\begin{aligned}
 1. \quad & \frac{9}{17} + \frac{5}{17} \\
 &= \frac{9+5}{17} \\
 &= \frac{14}{17}
 \end{aligned}$$

$$\begin{aligned}
 2. \quad & \frac{10}{20} - \frac{9}{20} \\
 &= \frac{10-9}{20} \\
 &= \frac{1}{20}
 \end{aligned}$$

$$\begin{aligned}
 3. \quad & \frac{3}{4} + \frac{1}{8} \\
 &= \frac{2}{2} \times \frac{3}{4} + \frac{1}{8} \\
 &= \frac{6}{8} + \frac{1}{8} \\
 &= \frac{6+1}{8} \\
 &= \frac{7}{8}
 \end{aligned}$$

$$\begin{aligned}
 4. \quad & \frac{2}{3} - \frac{5}{12} \\
 &= \frac{4}{4} \times \frac{2}{3} - \frac{5}{12} \\
 &= \frac{6}{12} - \frac{5}{12} \\
 &= \frac{6-5}{12} \\
 &= \frac{1}{12}
 \end{aligned}$$

$$\begin{aligned}
 5. \quad & \frac{5}{7} + \frac{4}{21} \\
 &= \frac{3}{3} \times \frac{5}{7} + \frac{4}{21} \\
 &= \frac{15}{21} + \frac{4}{21} \\
 &= \frac{15+4}{21}
 \end{aligned}$$

$$= \frac{19}{21}$$

6.

$$\begin{aligned} & \frac{3}{8} - \frac{5}{21} \\ &= \frac{21}{21} \times \frac{3}{8} - \frac{5}{21} \times \frac{8}{8} \\ &= \frac{63}{168} - \frac{40}{168} \\ &= \frac{63-40}{168} \\ &= \frac{43}{168} \end{aligned}$$

7.

$$\begin{aligned} & \frac{7}{8} + \frac{10}{12} \\ &= \frac{3}{3} \times \frac{7}{8} + \frac{10}{12} \times \frac{2}{2} \\ &= \frac{21}{24} + \frac{20}{24} \\ &= \frac{21+20}{24} \\ &= \frac{41}{24} \end{aligned}$$

8.

$$\begin{aligned} & \frac{5}{6} - \frac{5}{18} \\ &= \frac{3}{3} \times \frac{5}{6} - \frac{5}{18} \\ &= \frac{15}{18} - \frac{5}{18} \\ &= \frac{15-5}{18} \\ &= \frac{10}{18} \\ &= \frac{5}{9} \end{aligned}$$

9.

$$\begin{aligned} & \frac{3}{4} - \frac{1}{3} \\ &= \frac{3}{3} \times \frac{3}{4} - \frac{1}{3} \times \frac{4}{4} \\ &= \frac{9}{12} - \frac{4}{12} \\ &= \frac{9-4}{12} \\ &= \frac{5}{12} \end{aligned}$$

$$\begin{aligned}
 10. \quad & \frac{4}{5} + \frac{1}{4} \\
 &= \frac{4}{4} \times \frac{4}{5} + \frac{1}{4} \times \frac{5}{5} \\
 &= \frac{16}{20} + \frac{5}{20} \\
 &= \frac{16+5}{20} \\
 &= \frac{21}{20}
 \end{aligned}$$

$$\begin{aligned}
 11. \quad & \frac{8}{9} - \frac{3}{5} \\
 &= \frac{5}{5} \times \frac{8}{9} - \frac{3}{5} \times \frac{9}{9} \\
 &= \frac{40}{45} - \frac{27}{45} \\
 &= \frac{40-27}{45} \\
 &= \frac{13}{45}
 \end{aligned}$$

$$\begin{aligned}
 12. \quad & \frac{13}{5} + 5 \\
 &= \frac{13}{5} + \frac{5}{1} \\
 &= \frac{13}{5} + \frac{5}{1} \times \frac{5}{5} \\
 &= \frac{13}{5} + \frac{25}{5} \\
 &= \frac{13+25}{5} \\
 &= \frac{38}{5}
 \end{aligned}$$