

Solutions

$$\begin{aligned}
 1 \quad & 1\frac{1}{2} + 2\frac{1}{3} \\
 &= \frac{3}{2} + \frac{7}{3} \\
 &= \frac{3}{3} \times \frac{3}{2} + \frac{7}{3} \times \frac{2}{2} \\
 &= \frac{9}{6} + \frac{14}{6} \\
 &= \frac{23}{6}
 \end{aligned}$$

$$\begin{aligned}
 2 \quad & 4\frac{6}{8} - 1\frac{1}{6} \\
 &= \frac{38}{8} - \frac{7}{6} \\
 &= \frac{6}{6} \times \frac{38}{8} - \frac{7}{6} \times \frac{8}{8} \\
 &= \frac{228}{48} - \frac{56}{48} \\
 &= \frac{228-56}{48} \\
 &= \frac{172}{48}
 \end{aligned}$$

$$\begin{aligned}
 3 \quad & 5 + 2\frac{2}{5} \\
 &= \frac{5}{1} + \frac{12}{5} \\
 &= \frac{5}{5} \times \frac{5}{1} + \frac{12}{5} \\
 &= \frac{25}{5} + \frac{12}{5} \\
 &= \frac{25+12}{5} \\
 &= \frac{37}{5}
 \end{aligned}$$

$$\begin{aligned}
 4 \quad & 3\frac{1}{3} - 2\frac{1}{2} \\
 &= \frac{10}{3} - \frac{5}{2} \\
 &= \frac{2}{2} \times \frac{10}{3} - \frac{5}{2} \times \frac{3}{3} \\
 &= \frac{20}{6} - \frac{15}{6} \\
 &= \frac{20-15}{6}
 \end{aligned}$$

$$= \frac{5}{6}$$

$$\begin{aligned} 5 \quad & 2\frac{50}{100} + 3\frac{90}{180} \\ &= 2\frac{1}{2} + 3\frac{1}{2} \\ &= \frac{5}{2} + \frac{7}{2} \\ &= \frac{5+7}{2} \\ &= \frac{12}{2} \\ &= 6 \end{aligned}$$

$$\begin{aligned} 6 \quad \text{Fraction of bread and fruits} &= \frac{1}{3} + \frac{1}{5} \\ &= \frac{5}{5} \times \frac{1}{3} + \frac{1}{5} \times \frac{3}{3} \\ &= \frac{5}{15} + \frac{3}{15} \\ &= \frac{8}{15} \end{aligned}$$

$$\begin{aligned} 7 \quad \text{Fraction of pizza eaten by boys and girls} &= \frac{2}{5} + \frac{1}{2} \\ &= \frac{2}{2} \times \frac{2}{5} + \frac{1}{2} \times \frac{5}{5} \\ &= \frac{4}{10} + \frac{5}{10} \\ &= \frac{9}{10} \end{aligned}$$

$$\begin{aligned} 8 \quad \text{Thandi's share} &= \frac{3}{4} - \frac{1}{4} \\ &= \frac{3-1}{4} \\ &= \frac{2}{4} \\ &= \frac{1}{2} \end{aligned}$$

$$\begin{aligned} 9 \quad \text{Fraction of boys} &= 1 - \frac{2}{3} \\ &= \frac{1}{1} - \frac{2}{3} \\ &= \frac{3}{3} \times \frac{1}{1} - \frac{2}{3} \end{aligned}$$

$$= \frac{3}{3} - \frac{2}{3}$$

$$= \frac{1}{3}$$

10

Difference in km = $9\frac{2}{2} - 7\frac{1}{2}$

$$= \frac{47}{5} - \frac{15}{2}$$

$$= \frac{2}{2} \times \frac{47}{5} - \frac{15}{2} \times \frac{5}{5}$$

$$= \frac{94}{10} - \frac{75}{10}$$

$$= \frac{19}{10}$$

$$= 1\frac{9}{10} \text{ km}$$