Related-denominator addition/subtraction

6 questions | 10 marks

Equivalent correct methods earn the corresponding marks.

1. Calculate $\frac{2}{7} + \frac{3}{7}$. [1 mark]

Both fractions use sevenths. Add two and three.

Answer: $\frac{5}{7}$

2. Calculate $\frac{1}{2} + \frac{1}{4}$. [1 mark]

$\frac{1}{2} = \frac{2}{4}$, so $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$.

Answer: $\frac{3}{4}$

3. Calculate $\frac{7}{8} - \frac{1}{4}$. [2 marks]

$\frac{1}{4} = \frac{2}{8}$. Subtract $\frac{7}{8} - \frac{2}{8} = \frac{5}{8}$.

Answer: $\frac{5}{8}$

4. Calculate $\frac{5}{6} - \frac{1}{2}$. Simplify your answer. [2 marks]

$\frac{1}{2} = \frac{3}{6}$. Then $\frac{5}{6} - \frac{3}{6} = \frac{2}{6} = \frac{1}{3}$.

Answer: $\frac{1}{3}$

5. For a picnic, Sam fills $\frac{2}{5}$ of a jug with juice and $\frac{3}{10}$ with water. What fraction of the jug is filled? [2 marks]

$\frac{2}{5} = \frac{4}{10}$.

$\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$.

Answer: $\frac{7}{10}$

6. A bag holds $1\frac{3}{4}$ kilograms of rice. A cook uses $\frac{1}{2}$ kilogram. How much rice remains? [2 marks]

$\frac{1}{2} = \frac{2}{4}$.

$1\frac{3}{4} - \frac{2}{4} = 1\frac{1}{4}$.

Answer: $1\frac{1}{4}$ kilograms