

**TARGET** To add and subtract fractions and mixed numbers with different denominators.

**Examples**  $\frac{3}{5} + \frac{7}{10} = \frac{6+7}{10} = \frac{13}{10} = 1\frac{3}{10}$   $\frac{11}{12} - \frac{3}{4} = \frac{11-9}{12} = \frac{2}{12} = \frac{1}{6}$   
 $2\frac{3}{7} + 1\frac{5}{7} = 3\frac{8}{7} = 4\frac{1}{7}$   $5\frac{3}{4} - 1\frac{1}{8} = 4\frac{6-1}{8} = 4\frac{5}{8}$

If the numerators cannot be subtracted change one whole one into a fraction.

$$4\frac{3}{10} - 2\frac{1}{2} = 2\frac{3-5}{10} = 1\frac{13-5}{10} = 1\frac{8}{10} = \frac{4}{5}$$

## A

Copy and complete.

1  $\frac{4}{9} + \frac{1}{9} = \frac{\square}{9} + \frac{\square}{9} = \frac{\square}{9}$   
 2  $\frac{23}{100} + \frac{39}{100} = \frac{\square}{100} + \frac{\square}{100} = \frac{\square}{100}$   
 3  $\frac{3}{4} - \frac{1}{4} = \frac{\square}{4} - \frac{\square}{4} = \frac{\square}{4}$   
 4  $\frac{5}{8} - \frac{3}{8} = \frac{\square}{8} - \frac{\square}{8} = \frac{\square}{8}$   
 5  $\frac{3}{5} + \frac{4}{5} = \frac{\square}{5} = 1\frac{\square}{5}$   
 6  $\frac{7}{12} + \frac{7}{12} = \frac{\square}{12} = 1\frac{\square}{12}$   
 7  $1\frac{1}{6} - \frac{5}{6} = \frac{\square}{6} - \frac{5}{6} = \frac{\square}{6}$   
 8  $1\frac{3}{10} - \frac{7}{10} = \frac{\square}{10} - \frac{7}{10} = \frac{\square}{10}$

Work out

9  $\frac{1}{5} + \frac{2}{5}$       13  $\frac{6}{7} + \frac{4}{7}$   
 10  $\frac{3}{8} + \frac{3}{8}$       14  $\frac{3}{4} + \frac{3}{4}$   
 11  $\frac{99}{100} - \frac{12}{100}$       15  $1\frac{1}{3} - \frac{2}{3}$   
 12  $\frac{7}{9} - \frac{5}{9}$       16  $1\frac{4}{11} - \frac{9}{11}$

## B

Continue to complete. Write answers in lowest terms or as mixed numbers where necessary.

1  $\frac{1}{2} + \frac{3}{8} = \frac{\square}{8} + \frac{3}{8} = \frac{\square}{8}$   
 2  $\frac{11}{12} - \frac{5}{6} = \frac{11}{12} - \frac{\square}{12} = \frac{\square}{12}$   
 3  $\frac{5}{9} + \frac{1}{3} = \frac{5+\square}{9} = \frac{\square}{9}$   
 4  $\frac{4}{5} - \frac{7}{10} = \frac{\square-7}{10} = \frac{\square}{10}$   
 5  $3\frac{2}{7} + 1\frac{3}{7} = 4\frac{\square}{7} + \frac{\square}{7} = \dots$   
 6  $1\frac{7}{11} + 2\frac{10}{11} = 3\frac{\square}{11} + \frac{\square}{11} = \dots$   
 7  $4\frac{61}{100} - 1\frac{37}{100} = 3\frac{\square}{100} - \frac{\square}{100} = \dots$   
 8  $7\frac{4}{9} - 3\frac{5}{9} = 4\frac{\square}{9} - \frac{\square}{9} = \dots$

Work out

9  $\frac{4}{10} + \frac{1}{2}$       13  $1\frac{43}{100} + 5\frac{79}{100}$   
 10  $\frac{3}{4} + \frac{5}{12}$       14  $3\frac{2}{9} + 1\frac{7}{9}$   
 11  $\frac{7}{8} - \frac{1}{4}$       15  $4\frac{4}{5} - 2\frac{3}{5}$   
 12  $1\frac{1}{3} - \frac{5}{6}$       16  $6\frac{7}{12} - 3\frac{11}{12}$

## C

Work out

1  $\frac{1}{4} + \frac{1}{3}$   
 2  $\frac{2}{7} + \frac{1}{2}$   
 3  $\frac{2}{3} + \frac{3}{5}$   
 4  $\frac{9}{10} + \frac{2}{3}$   
 5  $\frac{7}{12} - \frac{1}{5}$   
 6  $\frac{9}{10} - \frac{3}{4}$   
 7  $1\frac{1}{6} - \frac{5}{8}$   
 8  $1\frac{1}{2} - \frac{4}{5}$   
 9  $2\frac{1}{3} + 1\frac{5}{12}$   
 10  $3\frac{57}{100} + 3\frac{3}{4}$   
 11  $5\frac{2}{5} + 2\frac{3}{10}$   
 12  $1\frac{3}{4} + 1\frac{7}{8}$   
 13  $3\frac{1}{2} - 1\frac{21}{100}$   
 14  $4\frac{3}{8} - 3\frac{5}{16}$   
 15  $2\frac{1}{2} - 1\frac{2}{3}$   
 16  $5\frac{125}{1000} - 2\frac{4}{5}$