# Subtract mixed numbers
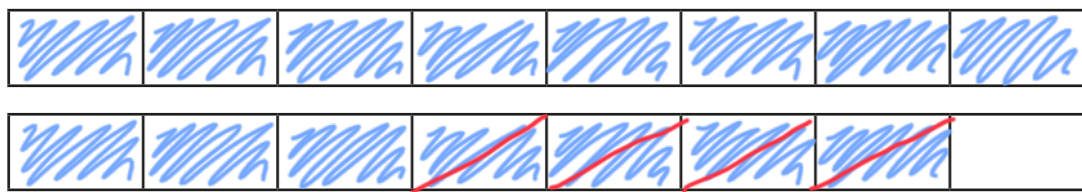
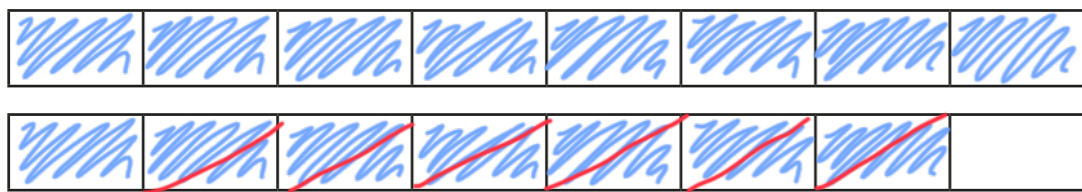**1** Complete the subtractions.

Use the bar models to help you.
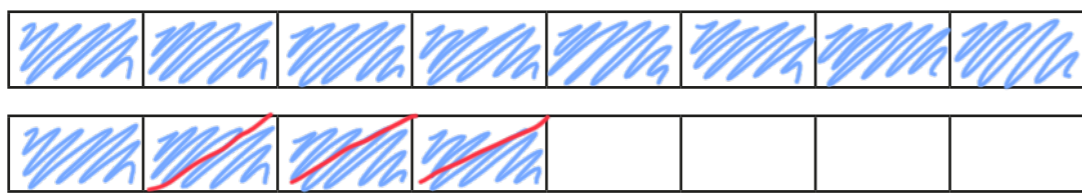
**a)**



$$\frac{15}{8} - \frac{1}{2} = \boxed{1\frac{3}{8}}$$

**b)**



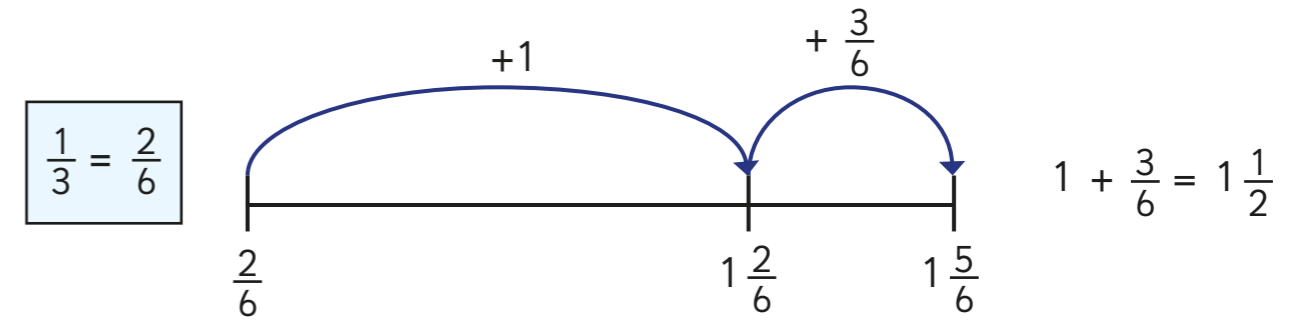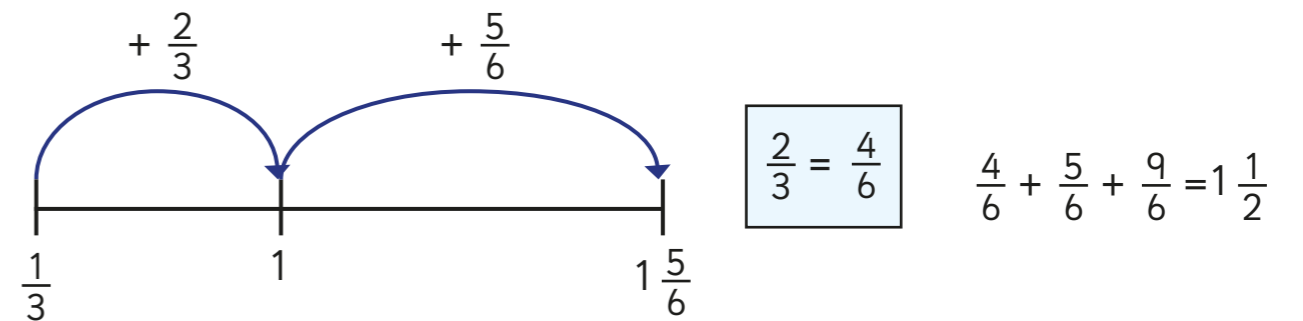$$1\frac{7}{8} - \frac{3}{4} = \boxed{1\frac{1}{8}}$$

**c)**



$$1\frac{1}{2} - \frac{3}{8} = \boxed{1\frac{1}{8}}$$

**2** Dexter and Whitney are using number lines to work out $1\frac{5}{6} - \frac{1}{3}$

**Dexter's method**



$$\frac{1}{3} = \frac{2}{6}$$

$$1 + \frac{3}{6} = 1\frac{1}{2}$$

**Whitney's method**



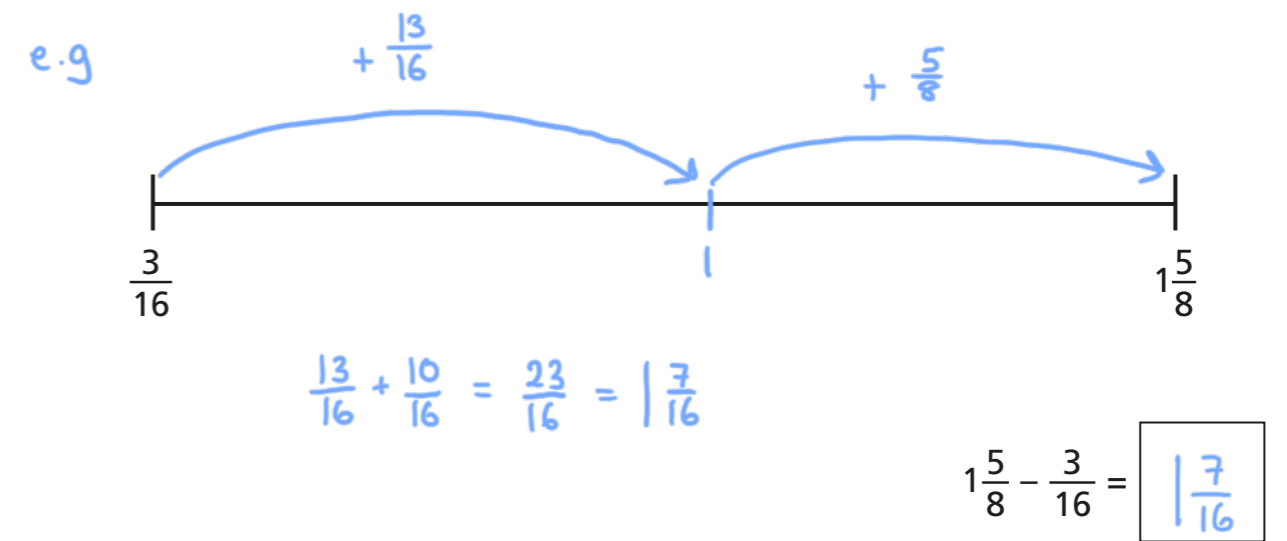$$\frac{2}{3} = \frac{4}{6}$$

$$\frac{4}{6} + \frac{5}{6} + \frac{9}{6} = 1\frac{1}{2}$$

What is the same and what is different about these methods?

Use one of the methods to work out $1\frac{5}{8} - \frac{3}{16}$

e.g



$$\frac{13}{16} + \frac{10}{16} = \frac{23}{16} = 1\frac{7}{16}$$

$$1\frac{5}{8} - \frac{3}{16} = \boxed{1\frac{7}{16}}$$

**3** Complete the subtractions.

a) $3\frac{1}{4} - \frac{5}{24} = \boxed{3\frac{1}{24}}$

d) $7\frac{5}{6} - \frac{13}{24} = \boxed{7\frac{7}{24}}$

b) $3\frac{3}{16} - \frac{1}{8} = \boxed{3\frac{1}{16}}$

e) $4\frac{4}{9} - \frac{4}{27} = \boxed{4\frac{8}{27}}$

c) $2\frac{5}{6} - \frac{2}{3} = \boxed{2\frac{1}{6}}$

f) $6\frac{11}{12} - \frac{3}{4} = \boxed{6\frac{1}{6}}$

**4** A jug contains $1\frac{3}{5}$ litres of orange juice.

Eva pours $\frac{4}{15}$ litres into a glass.

How much orange juice is left in the jug?

There are $\boxed{1\frac{1}{3}}$ litres of orange juice left in the jug.

**5** Find three different ways to complete the calculation.

e.g.

$3\frac{\boxed{1}}{5} - \frac{\boxed{3}}{20} = 3\frac{1}{20}$     $3\frac{\boxed{3}}{5} - \frac{\boxed{11}}{20} = 3\frac{1}{20}$

$3\frac{\boxed{2}}{5} - \frac{\boxed{7}}{20} = 3\frac{1}{20}$

Are there any other ways to complete this calculation?

**6** Three children take part in throwing competitions.

Here is the table of results.

| | Javelin | Shot Put | Discus |
|---|---|---|---|
| Dexter | $15\frac{1}{4}$ m | $7\frac{5}{12}$ m | $12\frac{3}{8}$ m |
| Amir | $13\frac{3}{8}$ m | $8\frac{1}{4}$ m | $12\frac{7}{8}$ m |
| Annie | $14\frac{1}{3}$ m | 9 m | $11\frac{5}{12}$ m |

Use the clues to complete the table.

- Annie's javelin throw is $\frac{11}{12}$ m less than Dexter's.

- Amir's shot put throw is $\frac{3}{4}$ m less than Annie's.

- Dexter's discus throw is $\frac{1}{2}$ m less than Amir's