Subtract mixed numbers
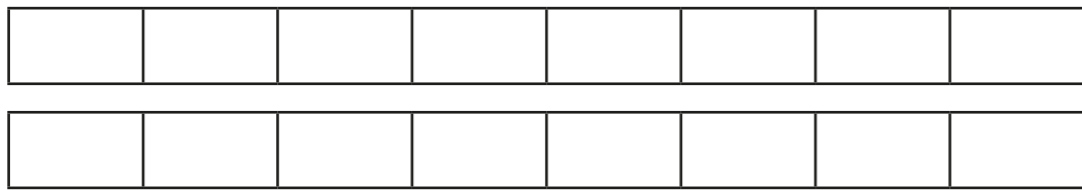
1 Complete the subtractions.
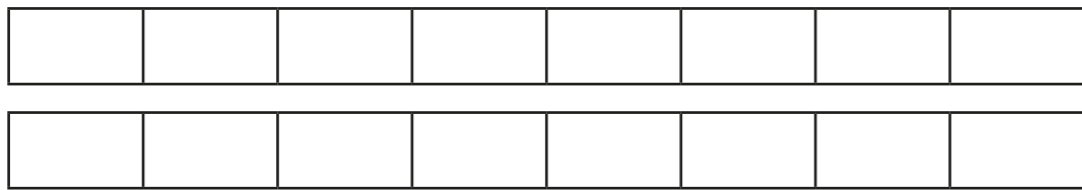
Use the bar models to help you.
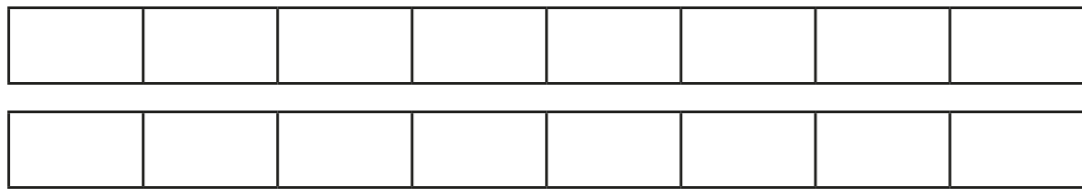
a)

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

b)

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

c)

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

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

Dexter's method

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

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

$\frac{2}{6}$ $1\frac{2}{6}$ $1\frac{5}{6}$

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

Whitney's method

$+\frac{2}{3}$ $+\frac{5}{6}$

$\frac{1}{3}$ 1 $1\frac{5}{6}$

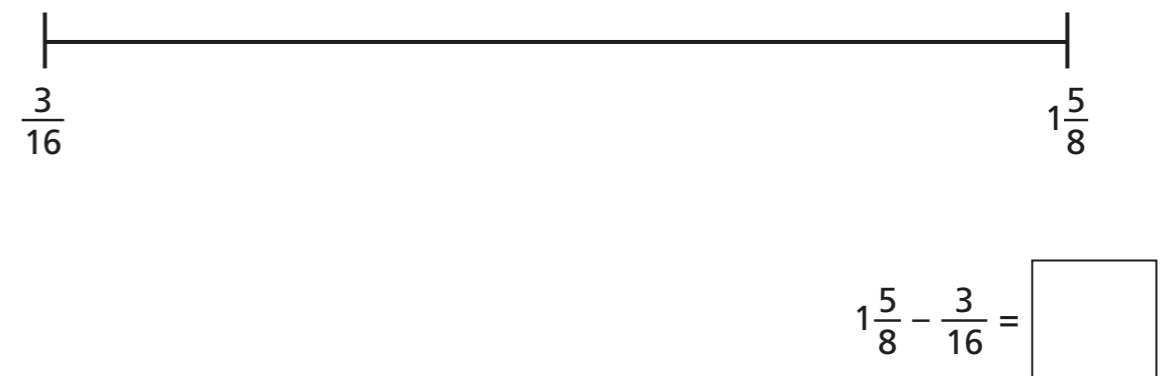$$\boxed{\frac{2}{3} = \frac{4}{6}}$$

$$\frac{4}{6} + \frac{5}{6} + \frac{9}{6} = 1\frac{1}{2}$$
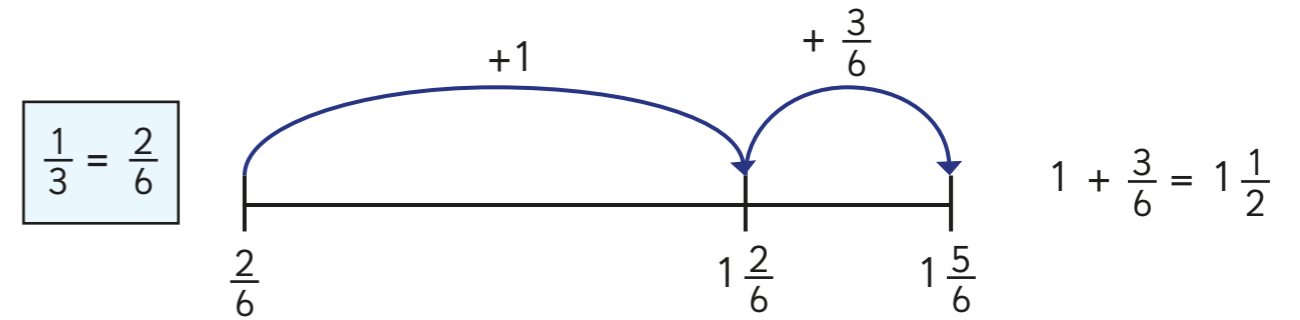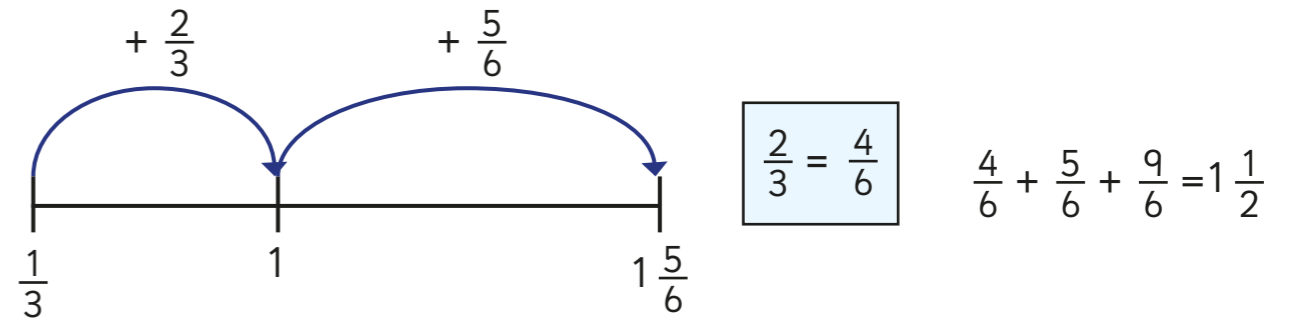
What is the same and what is different about these methods?

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

$\frac{3}{16}$ $1\frac{5}{8}$

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

3 Complete the subtractions.

a) $3\frac{1}{4} - \frac{5}{24} =$ ▢

d) $7\frac{5}{6} - \frac{13}{24} =$ ▢

b) $3\frac{3}{16} - \frac{1}{8} =$ ▢

e) $4\frac{4}{9} - \frac{4}{27} =$ ▢

c) $2\frac{5}{6} - \frac{2}{3} =$ ▢

f) $6\frac{11}{12} - \frac{3}{4} =$ ▢

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 ▢ litres of orange juice left in the jug.

5 Find three different ways to complete the calculation.

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

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

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	
Amir	$13\frac{3}{8}$ m		$12\frac{7}{8}$ m
Annie		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