

Addition of common fractions with the same denominators.

CAPS Statement

Numbers, Operations and relationships

Calculations with fractions:

- Addition of common fractions with same denominators

Notes

$$\frac{6}{8} \quad \begin{array}{l} \leftarrow \text{numerator} \\ \leftarrow \text{denominator} \end{array}$$

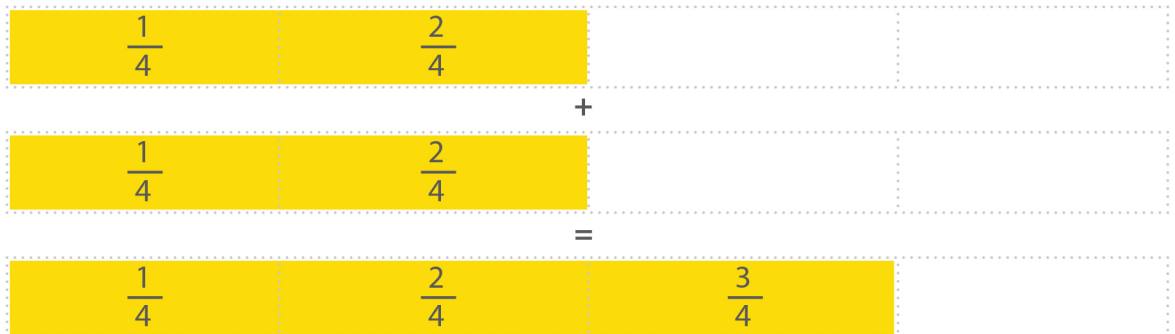
Look at the following circle diagrams:



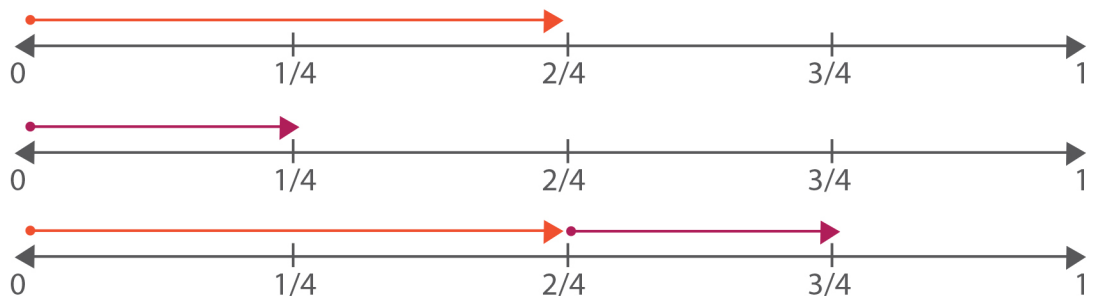
These diagrams illustrate how we can add $\frac{2}{4}$ to $\frac{1}{4}$ to get $\frac{3}{4}$. In arithmetic form, the sum would look like:

$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$

This can also be shown with the use of fraction strips:



Or, with the aid of number lines:



It should be clear that whenever we add two fractions with the same denominators, we only need to add the numerators together.



Activity 1

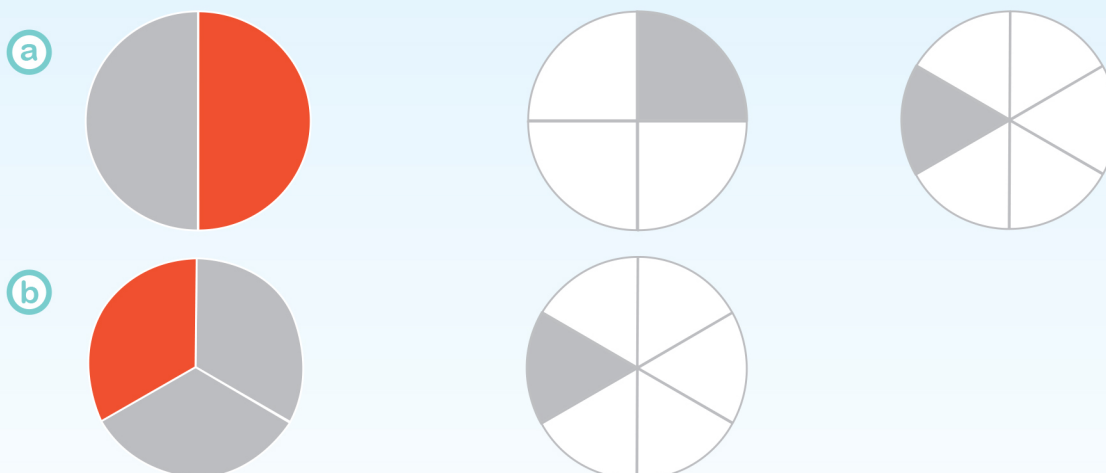
Complete the table.

Complete the following calculations. Use any type of diagram to help you.

a	$\frac{1}{3}$	+	$\frac{2}{3}$	=	
b	$\frac{1}{6}$	+	$\frac{3}{6}$	=	
c	$\frac{2}{5}$	+	$\frac{2}{5}$	=	
d	$\frac{1}{8}$	+	$\frac{5}{8}$	=	
e	$\frac{3}{7}$	+	$\frac{2}{7}$	=	
f	$\frac{1}{3}$	+	$\frac{1}{3}$	=	
g	$\frac{4}{5}$	+	$\frac{1}{5}$	=	
h	$\frac{1}{7}$	+	$\frac{5}{7}$	=	

Activity 2

Colour in the circles by starting with the grey section so that the circles are equivalent to the circles on the left.



Teacher Tip

Length or measurement models can be used to develop the concept of fractions as part of a whole and, if used in particular ways, also use fractions as a measure.

