# Add fractions within 1

**1** Complete the additions.
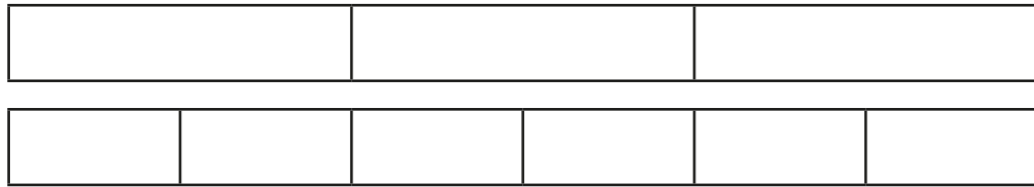
Use the bar models to help you.
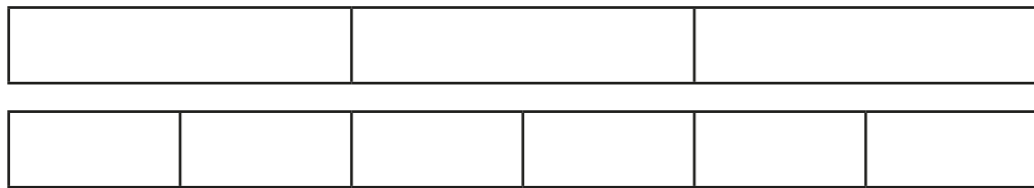
**a)**

$\frac{1}{2} + \frac{1}{6} = \boxed{\phantom{x}}$

**b)**

$\frac{1}{3} + \frac{1}{6} = \boxed{\phantom{x}}$

**c)**

$\frac{2}{3} + \frac{1}{6} = \boxed{\phantom{x}}$
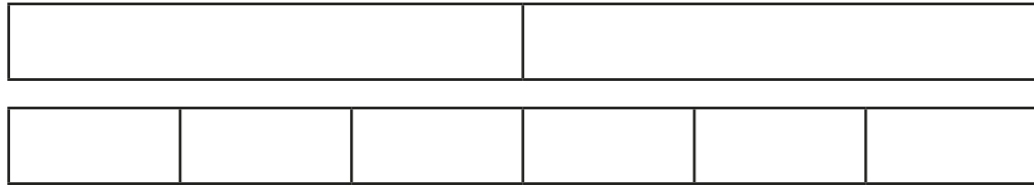
**2** Match the additions that have the same answer.

$\boxed{\frac{3}{4} + \frac{1}{12}}$   $\boxed{\frac{10}{12} + \frac{1}{12}}$

$\boxed{\frac{2}{3} + \frac{1}{12}}$   $\boxed{\frac{6}{12} + \frac{1}{12}}$

$\boxed{\frac{5}{6} + \frac{1}{12}}$   $\boxed{\frac{9}{12} + \frac{1}{12}}$

$\boxed{\frac{1}{2} + \frac{1}{12}}$   $\boxed{\frac{8}{12} + \frac{1}{12}}$

**3** Here are two jugs.
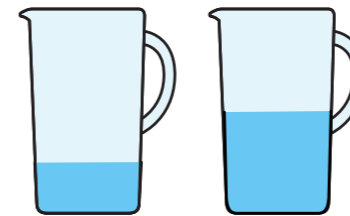
One jug contains $\frac{5}{18}$ litres of water.

The other jug contains $\frac{4}{9}$ litres of water.

How many litres of water are there altogether?

There are $\boxed{\phantom{x}}$ litres of water altogether.

**4 a)** Complete the calculations.

$$\frac{1}{5} + \frac{1}{10} = \boxed{\phantom{x}}$$

$$\frac{2}{5} + \frac{1}{10} = \boxed{\phantom{x}}$$

$$\frac{3}{5} + \frac{1}{10} = \boxed{\phantom{x}}$$

$$\frac{4}{5} + \frac{1}{10} = \boxed{\phantom{x}}$$

$$\frac{1}{16} + \frac{5}{32} = \boxed{\phantom{x}}$$

$$\frac{1}{8} + \frac{5}{32} = \boxed{\phantom{x}}$$

$$\frac{1}{4} + \frac{5}{32} = \boxed{\phantom{x}}$$

$$\frac{1}{2} + \frac{5}{32} = \boxed{\phantom{x}}$$

**b)** Can you spot any patterns? Talk to a partner about it.

**c)** What calculation would come next in each set?

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_____

**5** Complete the part-whole models.

**a)**

$\frac{1}{4}$   $\frac{5}{12}$

**b)**

$\frac{1}{3}$   $\frac{5}{12}$

**c)**

$\frac{1}{6}$   $\frac{5}{12}$

**d)**

$\frac{1}{2}$   $\frac{5}{12}$

**6**
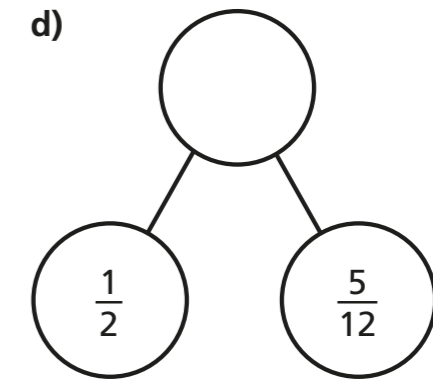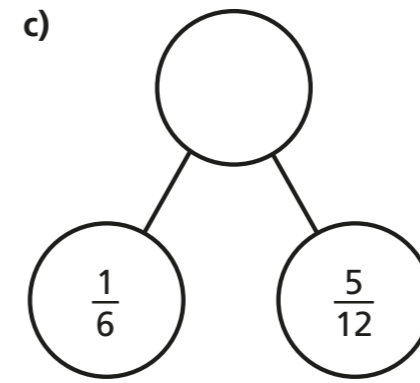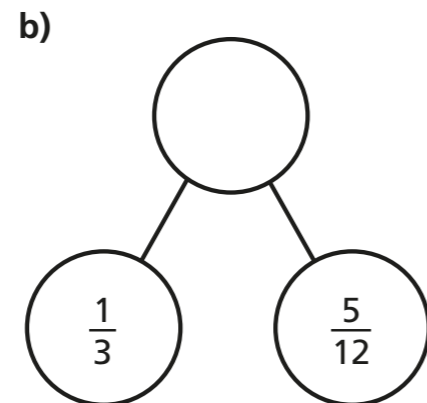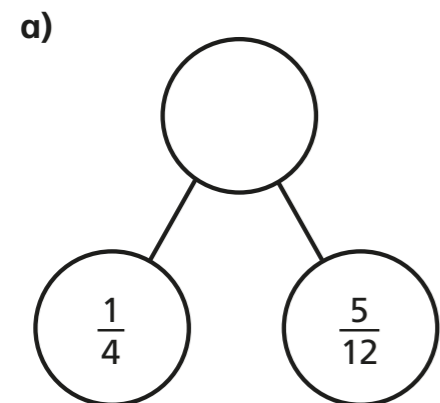
$$\frac{\boxed{\phantom{x}}}{8} + \frac{\boxed{\phantom{x}}}{16} = \frac{7}{8}$$

What could the missing numerators be?

Give six different possibilities.

$$\frac{\boxed{\phantom{x}}}{8} + \frac{\boxed{\phantom{x}}}{16} = \frac{7}{8}$$   $$\frac{\boxed{\phantom{x}}}{8} + \frac{\boxed{\phantom{x}}}{16} = \frac{7}{8}$$   $$\frac{\boxed{\phantom{x}}}{8} + \frac{\boxed{\phantom{x}}}{16} = \frac{7}{8}$$

$$\frac{\boxed{\phantom{x}}}{8} + \frac{\boxed{\phantom{x}}}{16} = \frac{7}{8}$$   $$\frac{\boxed{\phantom{x}}}{8} + \frac{\boxed{\phantom{x}}}{16} = \frac{7}{8}$$   $$\frac{\boxed{\phantom{x}}}{8} + \frac{\boxed{\phantom{x}}}{16} = \frac{7}{8}$$

**7** Complete the addition pyramids.

**a)**

$\frac{1}{7}$   $\frac{3}{14}$   $\frac{5}{28}$

**b)**

$\frac{6}{32}$   $\frac{1}{16}$   $\frac{7}{16}$
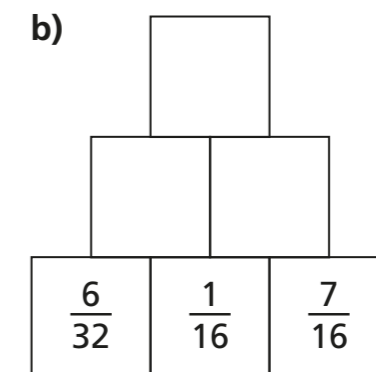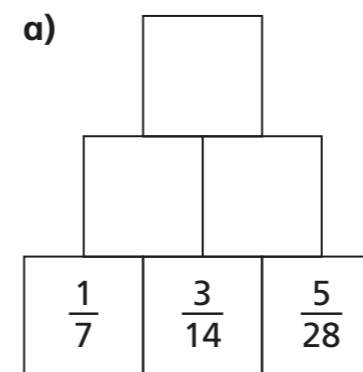
**c)** What fraction is equivalent to both of the fractions at the top of the pyramids?