Add to a mixed number

1 Complete the part-whole models.

a)

$3\frac{1}{4}$ — 3 —

c)

$2\frac{1}{2}$

b)

$4\frac{2}{5}$ — — $\frac{2}{5}$

d)

$12\frac{7}{9}$
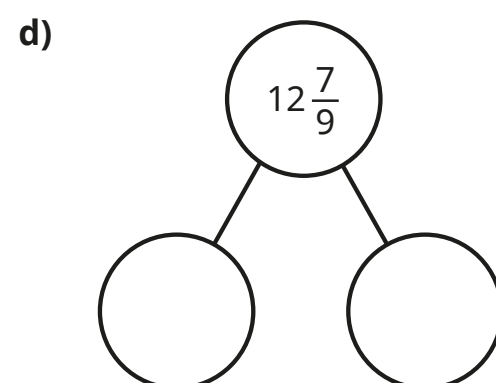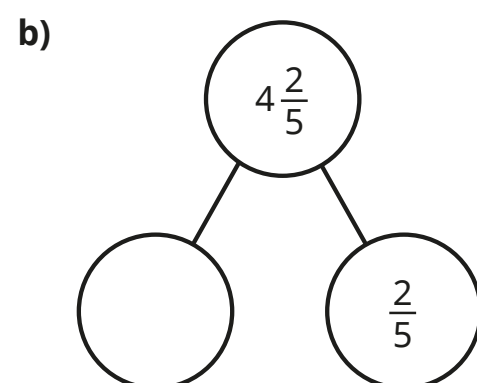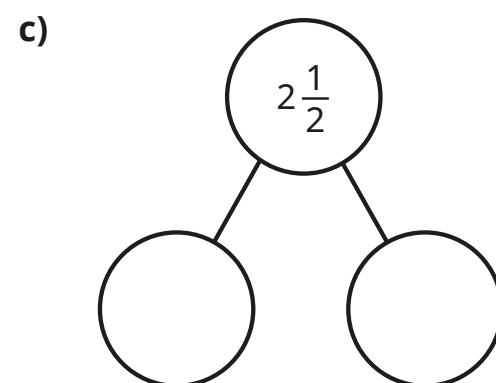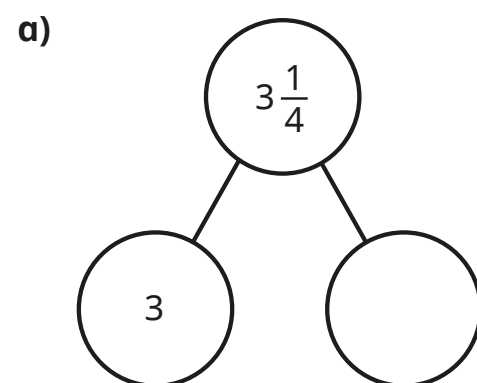
2 Filip is using bar models to add $2\frac{1}{3}$ and 3

$+$
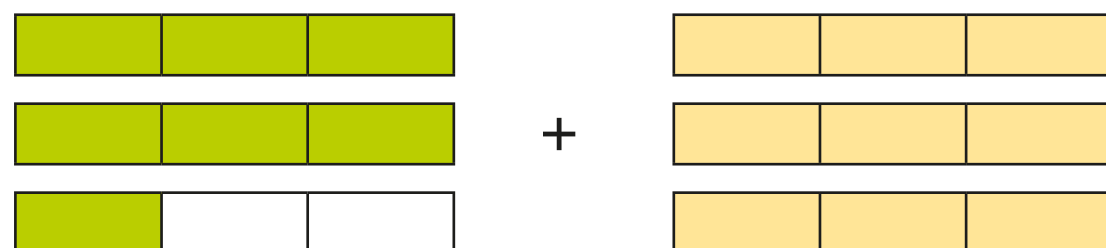
Complete Filip's workings.

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

3 Complete the additions.

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

e) $12 + 3\frac{7}{8} = \boxed{}$

b) $3\frac{4}{7} + 5 = \boxed{}$

f) $26\frac{2}{5} + 17 = \boxed{}$

c) $7 + 2\frac{1}{4} = \boxed{}$

g) $3\frac{1}{9} + 4 + 6 = \boxed{}$

d) $5 + 5\frac{4}{9} = \boxed{}$

h) $8 + 8\frac{8}{11} + 12 = \boxed{}$

4 Here is Brett's method for working out $3\frac{4}{7} + \frac{2}{7}$

$$3\frac{4}{7} + \frac{2}{7}$$
$$3 + \frac{4}{7} + \frac{2}{7}$$
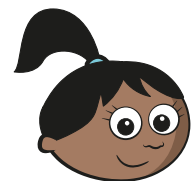$$3 + \frac{6}{7} = \boxed{}$$
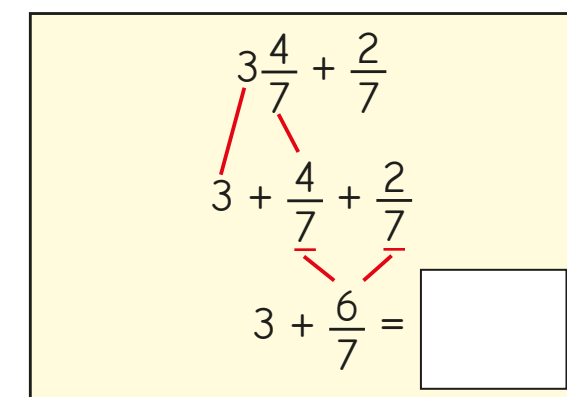
Use Brett's method to work out the additions.

a) $5\frac{4}{9} + \frac{3}{9} = \boxed{}$

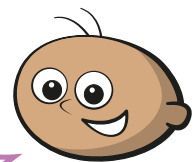**b)** $\frac{7}{11} + 4\frac{3}{11} = \boxed{}$

5 Sam and Tommy are finding the sum of $3\frac{3}{10}$ and $\frac{2}{10}$

Sam: $3\frac{3}{10} + \frac{2}{10} = 3\frac{5}{10}$

Tommy: $3\frac{3}{10} + \frac{2}{10} = 3\frac{1}{2}$

Who do you agree with? _____

Explain your reasoning.

6 Complete the additions.

Use equivalent fractions in your answer, if possible.

a) $5\frac{1}{8} + \frac{3}{8} = \boxed{}$

c) $\frac{2}{12} + 3\frac{7}{12} = \boxed{}$

b) $5\frac{3}{8} + \frac{3}{8} = \boxed{}$

d) $\frac{2}{9} + 4\frac{7}{9} = \boxed{}$

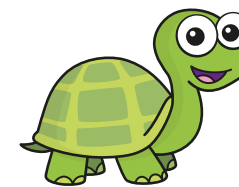**7** Nijah is using equivalent fractions to work out $2\frac{1}{2} + \frac{3}{8}$

$$2\frac{1}{2} + \frac{3}{8} = 2\frac{4}{8} + \frac{3}{8} = 2\frac{7}{8}$$

Use Nijah's method to work out the additions.

a) $4\frac{1}{3} + \frac{4}{9} = \boxed{}$

b) $\frac{1}{4} + 5\frac{5}{12} = \boxed{}$

8 Tiny is finding the sum of $\frac{2}{9}$ and $3\frac{1}{3}$

$$\frac{2}{9} + 3\frac{1}{3} = 3\frac{3}{12}$$

a) What mistake has Tiny made?

_____

_____

b) What is the correct answer?

$\boxed{}$

9 Complete the calculations.

$\boxed{1\frac{1}{12}}$ $\xrightarrow{+\frac{5}{12}}$ $\boxed{}$ $\xrightarrow{+3}$ $\boxed{}$ $\xrightarrow{+\frac{5}{12}}$ $\boxed{}$ $\xrightarrow{+\boxed{}}$ $\boxed{5}$
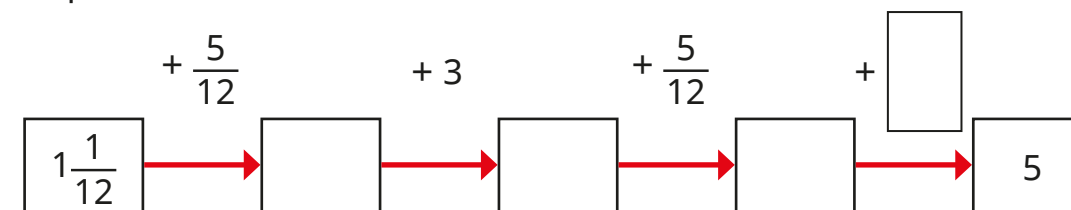
10 Work out the missing numbers.

$$5\frac{\boxed{}}{3} + \frac{2}{\boxed{}} = \boxed{} + 3\frac{8}{9}$$