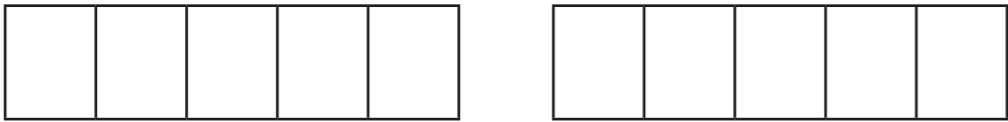# Add and subtract fractions
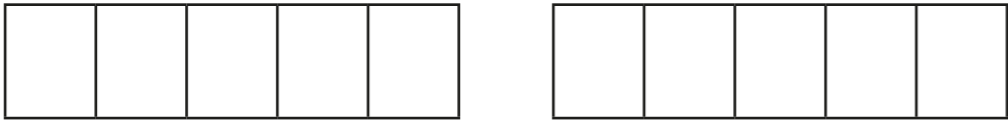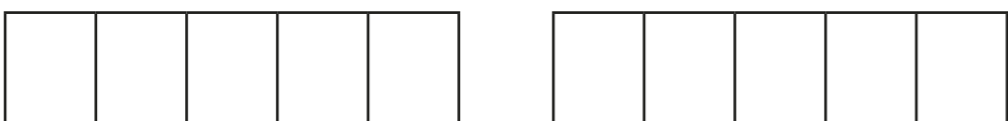
1 Complete the calculations.

Use the bar models to help you.

a)

$$\frac{4}{5} + \frac{3}{5} = \boxed{} = \boxed{}$$

b)

$$\frac{6}{5} + \frac{3}{5} = \boxed{} = \boxed{}$$

c)

$$\frac{8}{5} - \frac{6}{5} = \boxed{}$$

d)

$$\frac{9}{5} - \frac{3}{5} = \boxed{} = \boxed{}$$

2 Complete the calculations.

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

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

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

d) $\frac{8}{7} - \frac{3}{7} = \boxed{}$

e) $\frac{7}{9} + \frac{8}{9} = \boxed{} = \boxed{}$

f) $\frac{17}{9} - \frac{8}{9} = \boxed{} = \boxed{}$

g) $\frac{16}{9} - \frac{8}{9} = \boxed{}$

h) $\frac{7}{9} + \frac{2}{9} + \frac{8}{9} = \boxed{} = \boxed{}$

i) $\frac{7}{15} + \frac{2}{15} + \frac{8}{15} = \boxed{} = \boxed{}$

j) $\frac{7}{15} - \frac{2}{15} + \frac{8}{15} = \boxed{}$

3

$$\frac{\boxed{}}{8} + \frac{\boxed{}}{8} = \frac{13}{8}$$

What could the missing numerators be?

Give six different possibilities.

$$\frac{\boxed{}}{8} + \frac{\boxed{}}{8} = \frac{13}{8} \qquad \frac{\boxed{}}{8} + \frac{\boxed{}}{8} = \frac{13}{8}$$

$$\frac{\boxed{}}{8} + \frac{\boxed{}}{8} = \frac{13}{8} \qquad \frac{\boxed{}}{8} + \frac{\boxed{}}{8} = \frac{13}{8}$$

$$\frac{\boxed{}}{8} + \frac{\boxed{}}{8} = \frac{13}{8} \qquad \frac{\boxed{}}{8} + \frac{\boxed{}}{8} = \frac{13}{8}$$

4 Dora has $2\frac{3}{8}$ litres of juice.

She pours out $\frac{9}{8}$ litres of juice.

How many litres of juice does she have left?

Dora has ☐ litres left.

5 Fill in the missing numerators.

a) $\frac{3}{8} + \frac{\boxed{}}{8} = \frac{13}{8}$

b) $\frac{13}{8} - \frac{\boxed{}}{8} = \frac{7}{8}$

c) $\frac{13}{8} - \frac{\boxed{}}{8} = 1$

d) $\frac{11}{9} + \frac{\boxed{}}{9} = \frac{22}{9} = 2\frac{\boxed{}}{9}$

e) $\frac{11}{9} + \frac{\boxed{}}{9} = \frac{\boxed{}}{9} = 2\frac{2}{9}$

f) $\frac{22}{9} - \frac{\boxed{}}{9} = \frac{\boxed{}}{9} = 2\frac{2}{9}$

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

h) $\frac{5}{7} + \frac{\boxed{}}{7} + \frac{5}{7} = 2$

i) $\frac{6}{7} + \frac{\boxed{}}{7} + \frac{6}{7} = 2$

j) $\frac{14}{7} + \frac{\boxed{}}{7} + \frac{4}{7} = 3$

k) $\frac{15}{7} + \frac{\boxed{}}{7} + \frac{5}{7} = 3$

i) $\frac{16}{7} + \frac{\boxed{}}{7} + \frac{6}{7} = 4$

Compare answers with a partner. What do you notice?

6 Here are some fraction cards.

| $\frac{9}{8}$ | $\frac{13}{8}$ | $\frac{1}{8}$ | $\frac{7}{8}$ | $\frac{3}{8}$ | $1\frac{7}{8}$ |
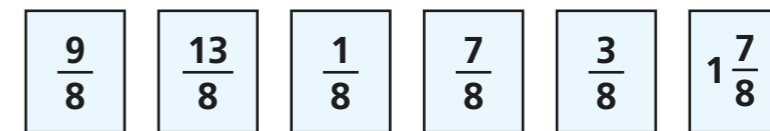
Use the cards to write pairs of fractions with a total of 2

☐ + ☐ = 2

☐ + ☐ = 2

☐ + ☐ = 2

7 Annie and Dexter both have a skipping rope.

Annie's rope is $\frac{3}{4}$ m shorter than Dexter's rope.

The ropes are $\frac{13}{4}$ m altogether.

How long is each skipping rope?

Annie's rope is ☐ m long.   Dexter's rope is ☐ m long.