Add and subtract fractions with the same denominator

White Rose MATHS

1 Complete the calculations.

Use the bar models to help you.

a)

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

b)

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

c)

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

d)

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

2 Complete the calculations.

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

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

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

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

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

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

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

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

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

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

3 $\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$

What could the missing numerators be?

Give six different possibilities.

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

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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?

☐ litres

5 Fill in the missing numerators.

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

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

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

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

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

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

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

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

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

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

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

l) $\frac{16}{7} + \frac{\square}{7} + \frac{6}{7} = 4$

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 Teddy both have a skipping rope.

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

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

How long is each skipping rope?

Annie's rope is ☐ m long.

Teddy's rope is ☐ m long.