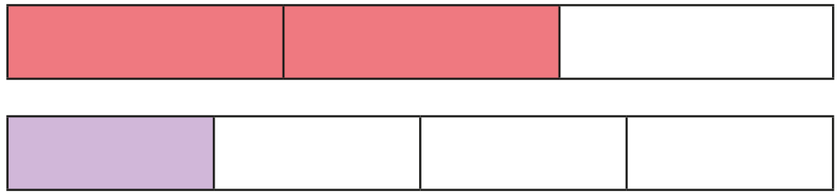
Add and subtract fractions (2)

1 Amir is using fraction strips to work out $\frac{2}{3} + \frac{1}{4}$



Amir says he needs to find a common denominator.

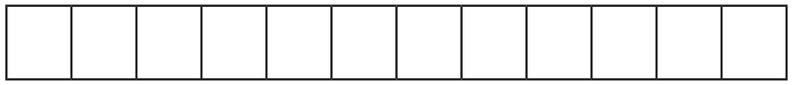
a) Complete Amir's method.

$\frac{2}{3} = \frac{\square}{12}$

$\frac{1}{4} = \frac{\square}{12}$

$\frac{2}{3} + \frac{1}{4} = \frac{\square}{12} + \frac{\square}{12} = \frac{\square}{12}$

b) Show the addition on the fraction strip.



c) Could you have used a different denominator?

2 What common denominator can you use to add the fractions?

a) $\frac{2}{5} + \frac{1}{2}$ Common denominator = ☐

b) $\frac{2}{3} + \frac{4}{5}$ Common denominator = ☐

c) $\frac{7}{8} - \frac{1}{4}$ Common denominator = ☐

d) $\frac{7}{9} - \frac{1}{6}$ Common denominator = ☐

e) $\frac{11}{15} + \frac{3}{10}$ Common denominator = ☐

3 Ron and Eva are working out $\frac{1}{4} + \frac{5}{6}$

Ron's method

$\frac{1}{4} + \frac{5}{6} = \frac{3}{12} + \frac{10}{12} = \frac{13}{12}$

Eva's method

$\frac{1}{4} + \frac{5}{6} = \frac{6}{24} + \frac{20}{24} = \frac{26}{24}$

a) What is the same about Ron's and Eva's methods?

b) What is different about their methods?

c) Which method do you prefer? Why?

4 Complete the calculations.

a) $\frac{1}{5} + \frac{3}{4} =$ ☐

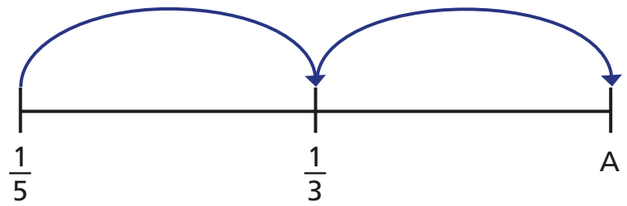
b) $\frac{7}{8} - \frac{1}{3} =$ ☐

c) $\frac{1}{2} - \frac{1}{7} =$ ☐

d) $\frac{11}{18} + \frac{7}{12} =$ ☐

5 Mo is drawing jumps on a number line.

The jumps are the same size.



a) What is the size of the jump?

☐

b) What is the value of A?

☐

6 Complete the bar model.

$\frac{5}{18}$	$\frac{1}{6}$	$\frac{5}{9}$

7 Complete the additions.

Give your answers as mixed numbers and as improper fractions.

a) $\frac{4}{5} + \frac{5}{4} =$ ☐ = ☐

b) $\frac{2}{3} + \frac{3}{2} =$ ☐ = ☐

c) $\frac{9}{8} + \frac{8}{9} =$ ☐ = ☐

d) ☐ = ☐ $= \frac{5}{3} + \frac{3}{5}$

What patterns do you notice?

8 Look at these additions.

$\frac{1}{2} + \frac{1}{3} =$ ☐

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

$\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} =$ ☐

a) When does this pattern first give an answer greater than 2?

b) Do you think the pattern will ever give an answer greater than 100?