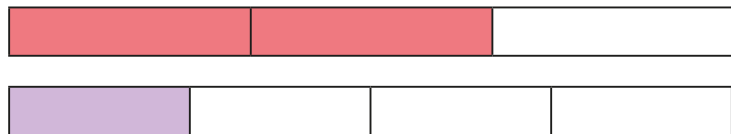
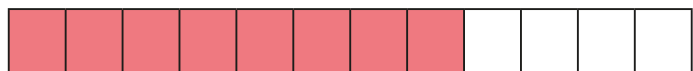


- 1 Amir is using fraction strips to work out $\frac{2}{3} + \frac{1}{4}$



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) $\frac{2}{5} + \frac{1}{2}$ c) $\frac{7}{8} - \frac{1}{4}$ e) $\frac{11}{15} + \frac{3}{10}$
 b) $\frac{2}{3} + \frac{4}{5}$ d) $\frac{7}{9} - \frac{1}{6}$

- 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

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

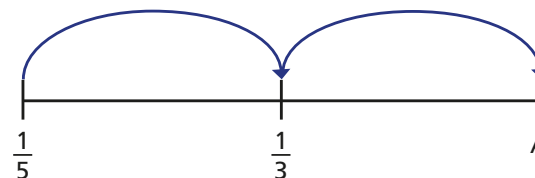
- a) What is the same about Ron's and Eva's methods?
 b) What is different about their methods?
 c) Which method do you prefer? Why?

- 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?

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

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

- What is the same about Ron's and Eva's methods?
- What is different about their methods?
- Which method do you prefer? Why?

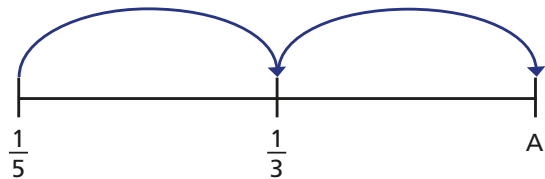


4 Complete the calculations.

- a) $\frac{1}{5} + \frac{3}{4}$ b) $\frac{7}{8} - \frac{1}{3}$ c) $\frac{1}{2} - \frac{1}{7}$ d) $\frac{11}{18} + \frac{7}{12}$

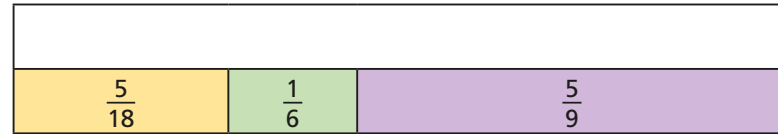


5 Mo is drawing jumps on a number line. The jumps are the same size.



- What is the size of the jump?
- What is the value of A?

6 Complete the bar model.



7 Work out 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.

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

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

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

- When does this pattern first give an answer greater than 2?
- Do you think the pattern will ever give an answer greater than 100?

