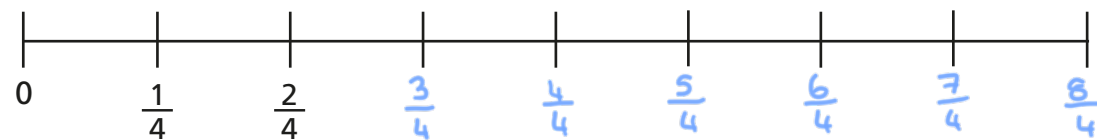


Explore fractions above 1, decimals and percentages

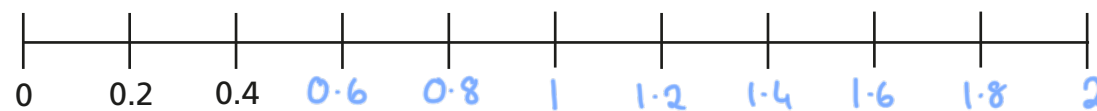
H

1 Continue the number lines.

a)



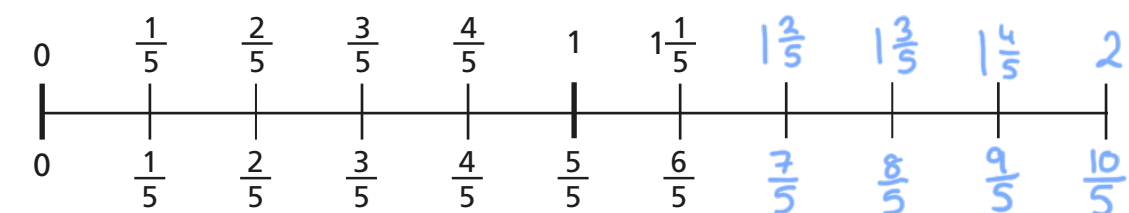
b)



c)



2 a) Complete the number line.

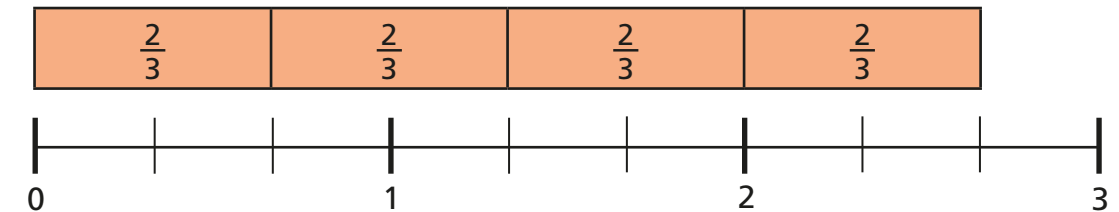


b) Use the number line to convert the following.

$$1 \frac{2}{5} = \frac{7}{5}$$

$$\frac{11}{5} = 2 \frac{1}{5}$$

3 This number line shows the calculation $\frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3}$

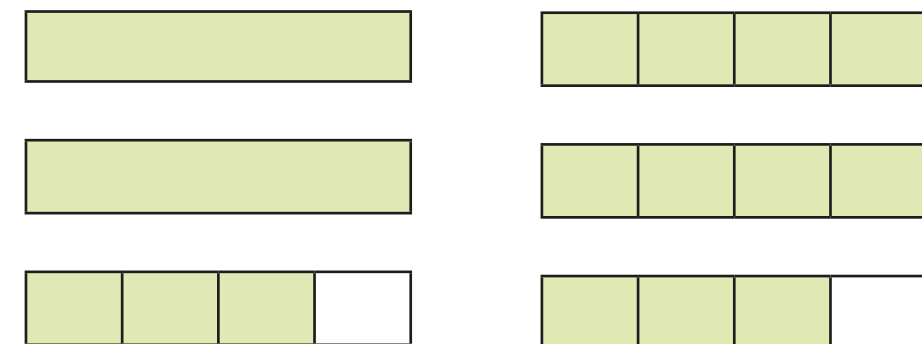


a) How many thirds are there altogether? $\frac{8}{3}$

b) Complete the calculation.

$$\frac{8}{3} = 2 \frac{2}{3}$$

4 Kim uses bar models to convert mixed numbers into improper fractions.



These models show that $2 \frac{3}{4} = \frac{11}{4}$

Use Kim's method to convert the mixed numbers to improper fractions.

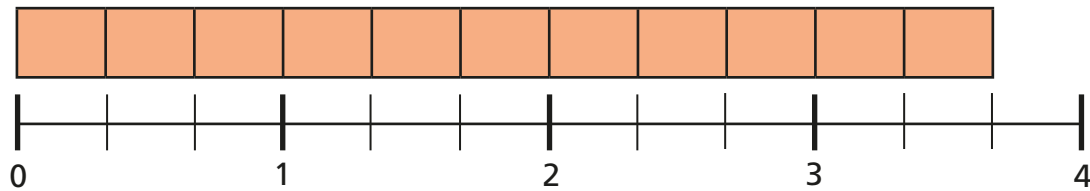
a) $3 \frac{1}{2} = \frac{7}{2}$

b) $2 \frac{3}{4} = \frac{11}{4}$

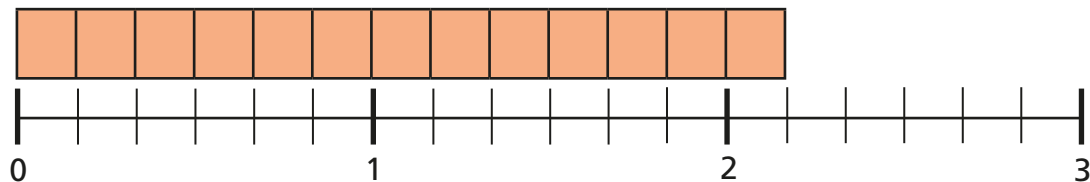
5

Convert the improper fractions to mixed numbers.

$$\text{a) } \frac{11}{3} = 3 \frac{2}{3}$$



$$\text{b) } \frac{13}{6} = 2 \frac{1}{6}$$



$$\text{c) } \frac{17}{4} = 4 \frac{1}{4}$$

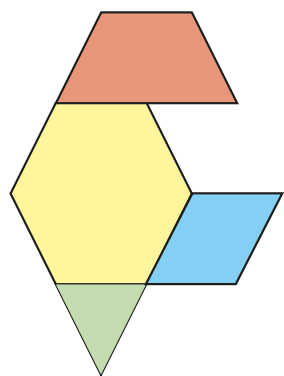
$$\text{e) } \frac{39}{5} = 7 \frac{4}{5}$$

$$\text{d) } \frac{39}{10} = 3 \frac{9}{10}$$

$$\text{f) } \frac{123}{2} = 61 \frac{1}{2}$$

6

Look at the pattern blocks.



Two triangles fit exactly into one rhombus.

Three triangles fit exactly into one trapezium.



a) If the hexagon represents 1 whole, what fractions are represented by these shapes?

$$\text{Triangle} = \frac{1}{6}$$

$$\text{Rhombus} = \frac{1}{3}$$

$$\text{Trapezium} = \frac{1}{2}$$

b) If the triangle represents 50%, what percentages are represented by these shapes?

$$\text{Rhombus} = 100\%$$

$$\text{Trapezium} = 150\%$$

$$\text{Hexagon} = 300\%$$

c) If the rhombus represents 0.5, what decimals are represented by these shapes?

$$\text{Triangle} = 0.25$$

$$\text{Trapezium} = 0.75$$

$$\text{Hexagon} = 1.5$$

7

The n th term of a sequence is given by the rule $\frac{4n}{5}$.

Write the first six terms of the sequence.

Give your answers as mixed numbers.

$$\frac{4}{5}, 1\frac{3}{5}, 2\frac{2}{5}, 3\frac{1}{5}, 4, 4\frac{4}{5}$$

