

# EQUIVALENT FRACTIONS



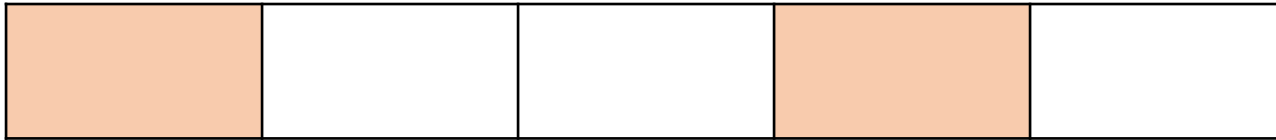
**GET READY**



1) Circle the non-unit fractions

$$\frac{2}{5} \quad \frac{1}{7} \quad \frac{4}{5} \quad \frac{5}{6} \quad \frac{1}{9}$$

2) What fraction of the bar is shaded orange?



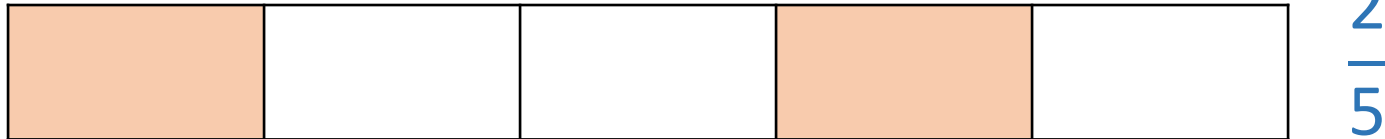
3) What fraction of the bar is shaded blue?



1) Circle the non-unit fractions

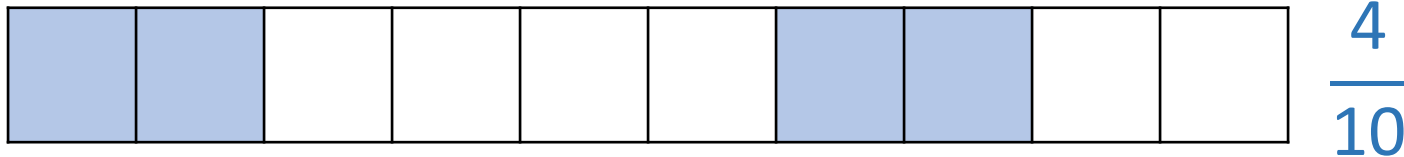
$$\frac{2}{5} \quad \frac{1}{7} \quad \frac{4}{5} \quad \frac{5}{6} \quad \frac{1}{9}$$

2) What fraction of the bar is shaded orange?



$$\frac{2}{5}$$

3) What fraction of the bar is shaded blue?



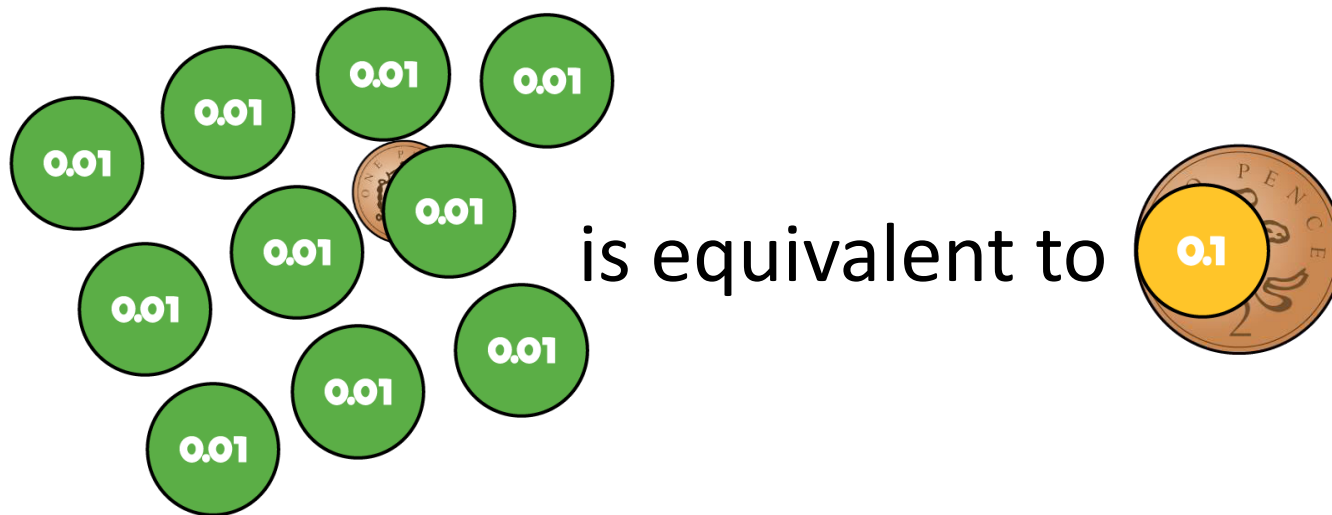
$$\frac{4}{10}$$

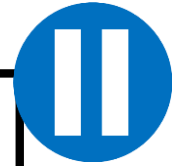
LET'S LEARN



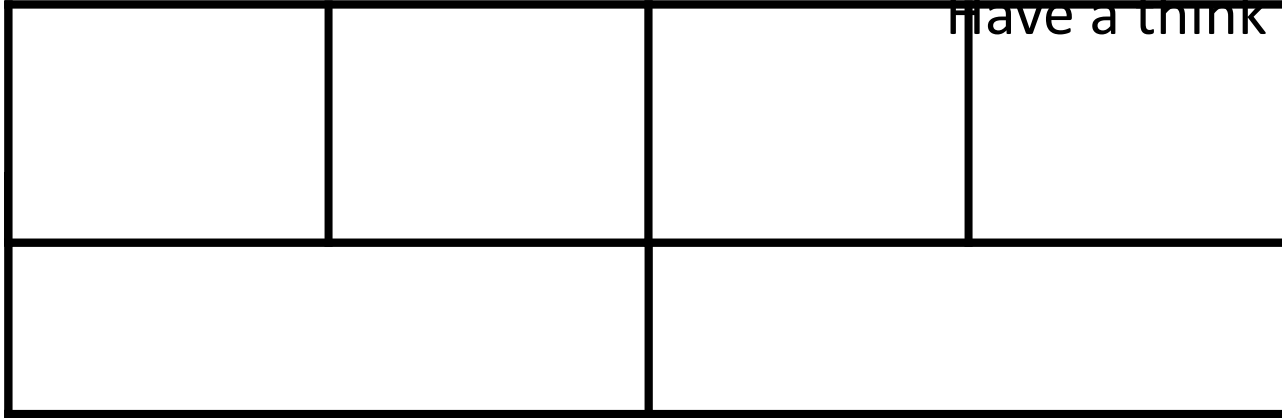
# Equivalent fractions

Equivalent means the same *value* or *amount*.

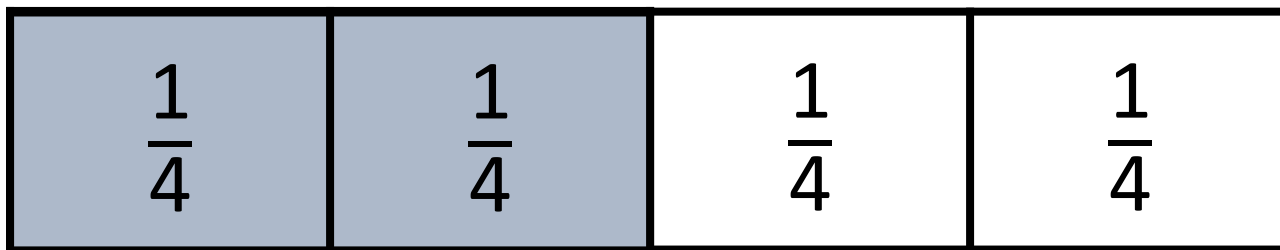
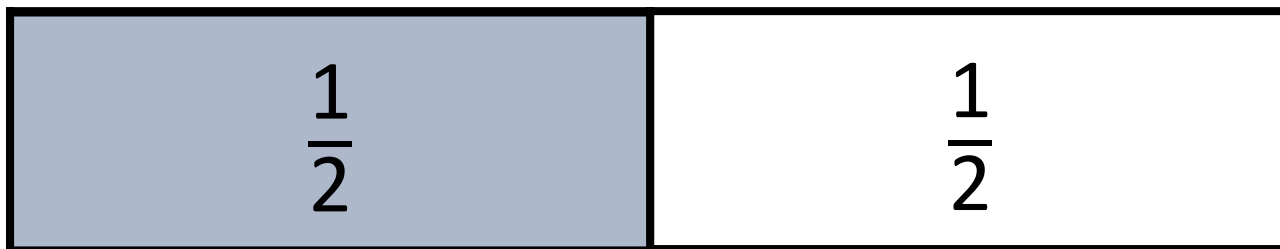




Have a think



Here is a strip of paper.  
What do you notice?  
I cut it into 4 equal pieces.

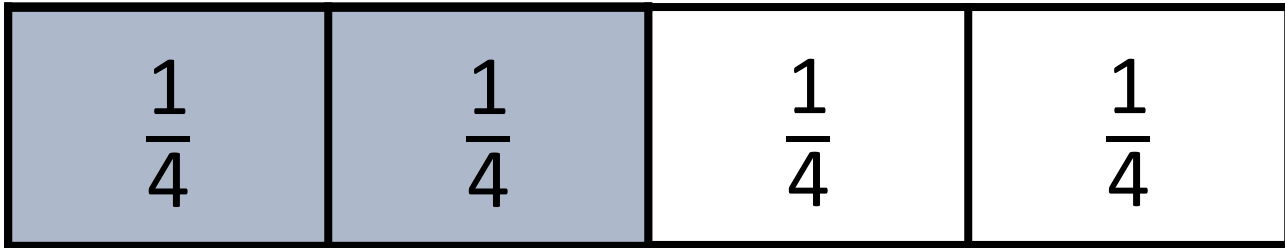
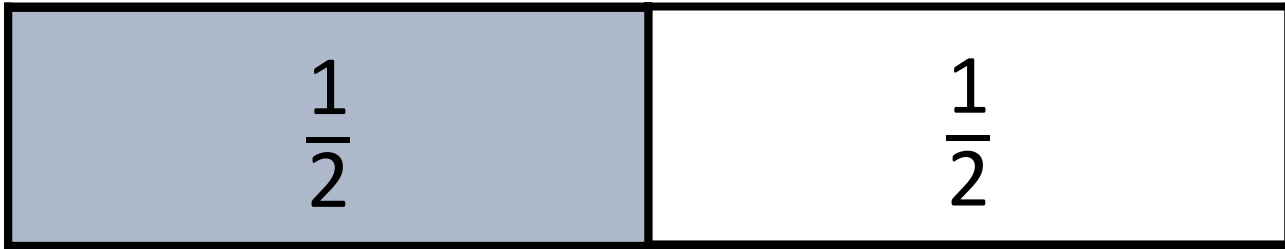


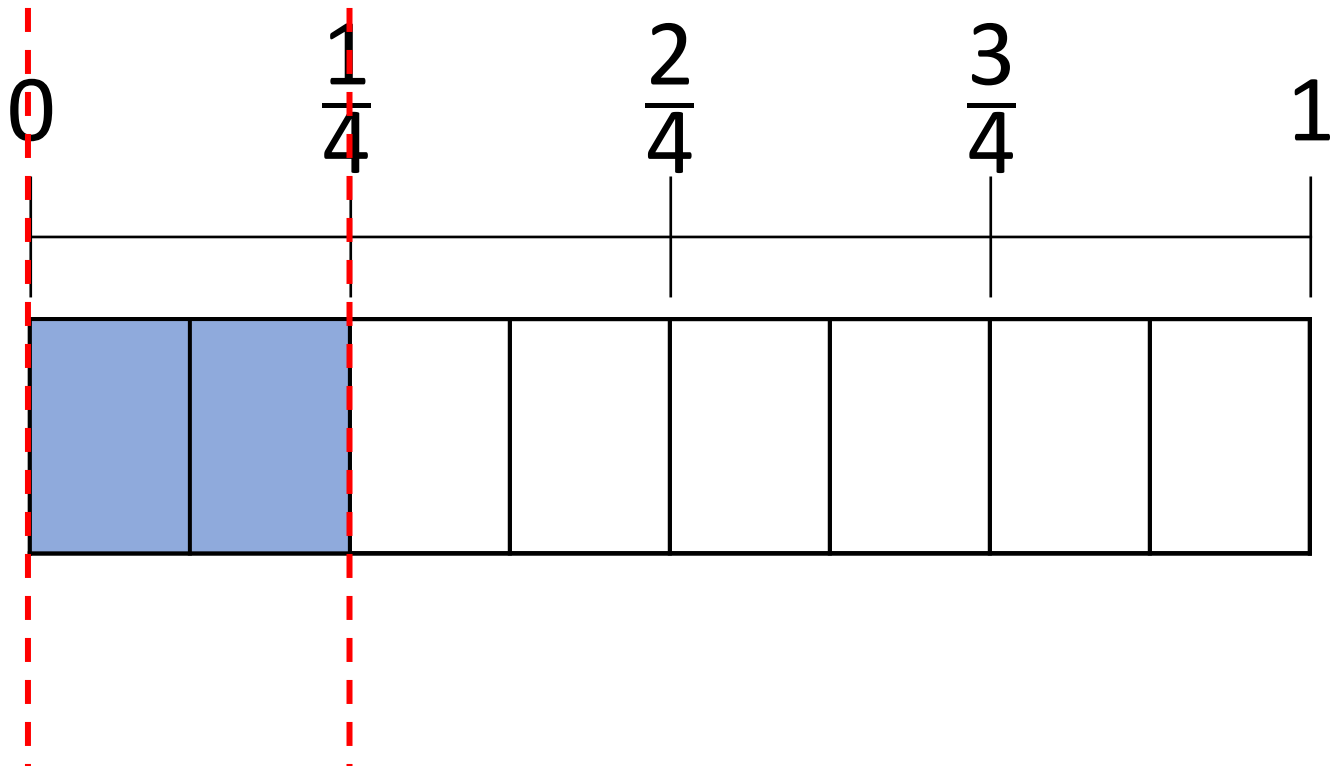
$\frac{1}{2}$  is equivalent to  $\frac{2}{4}$



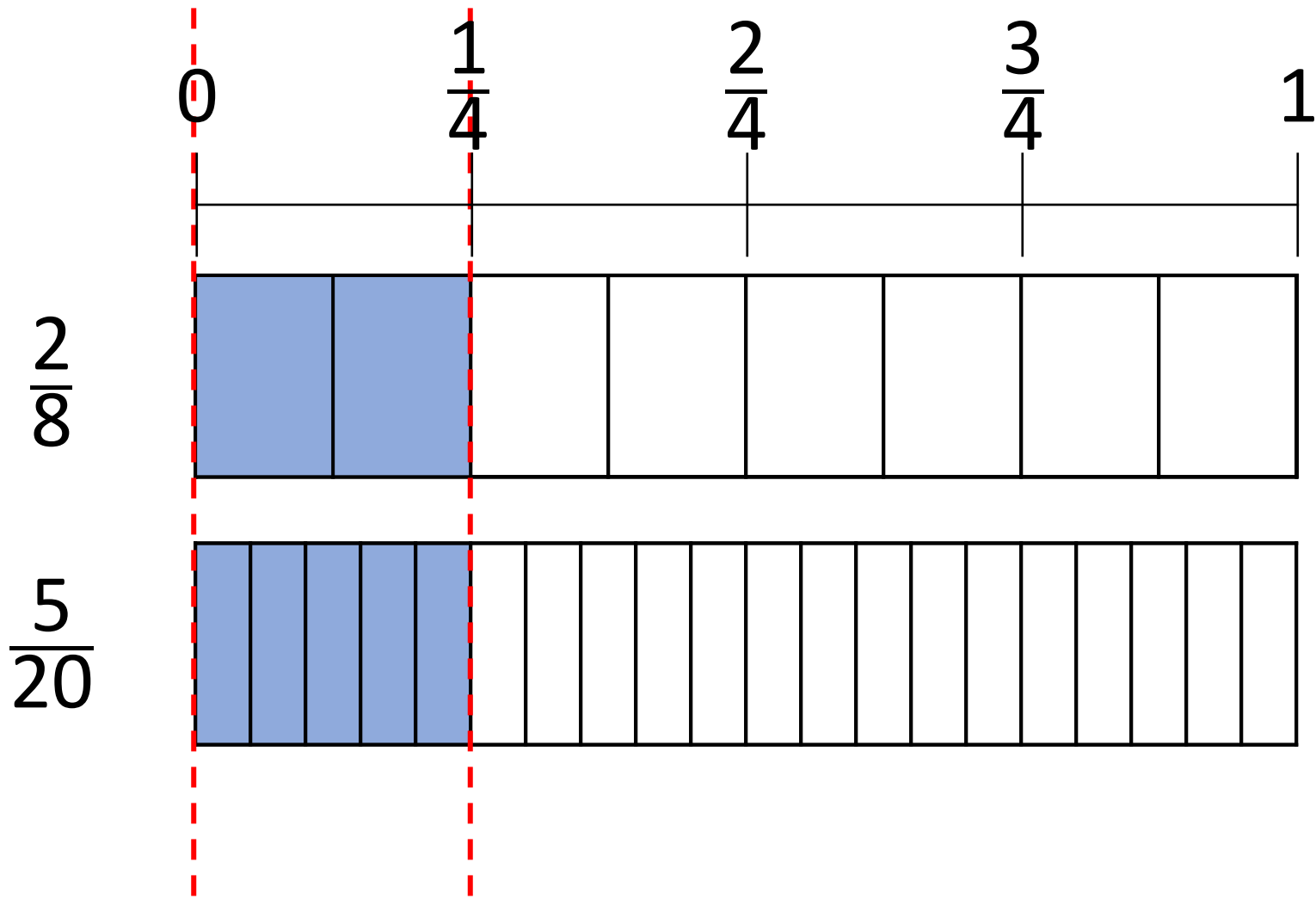
$$\times 2 \left( \frac{1}{2} \right) \div 2$$

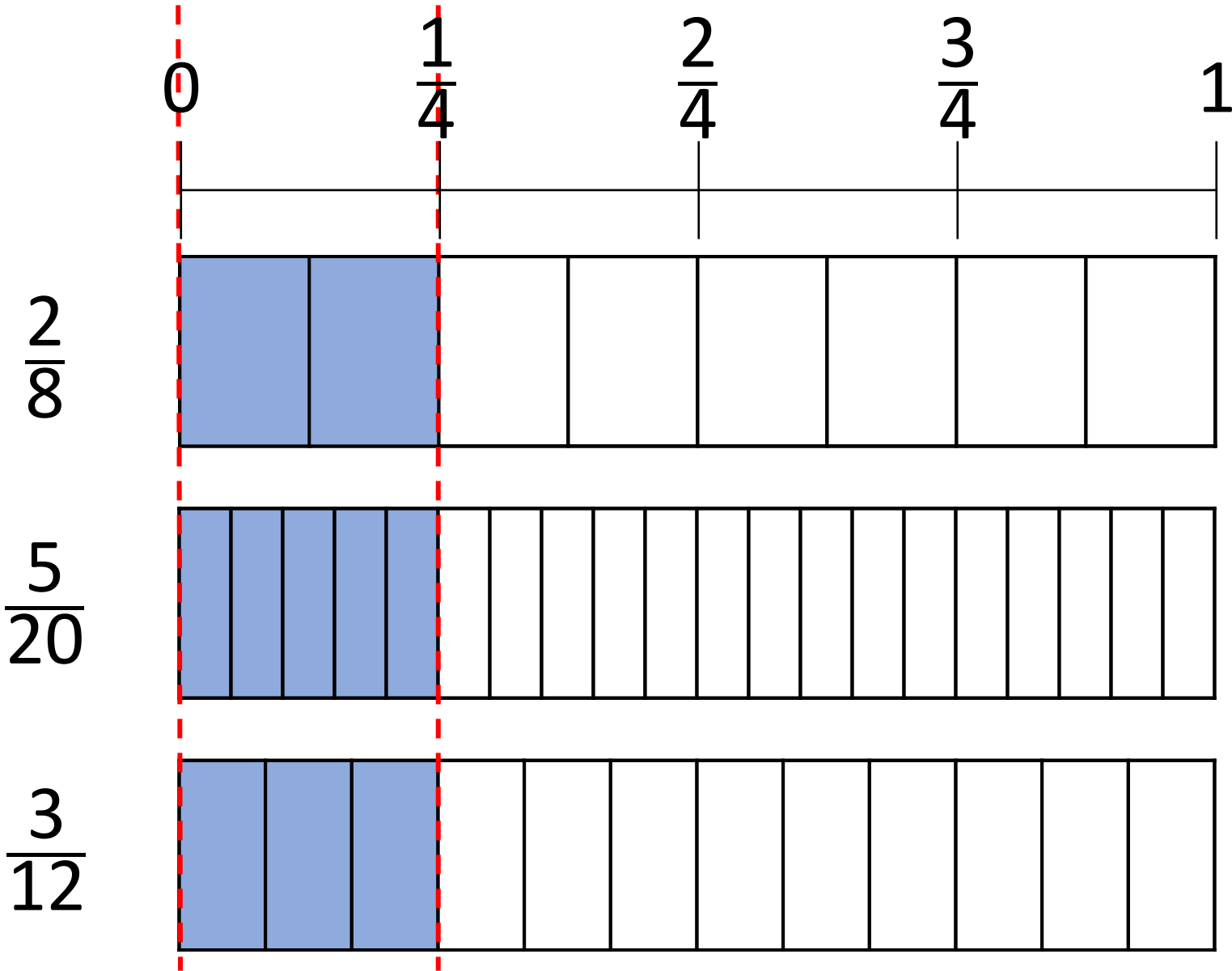
$$\div 2 \left( \frac{2}{4} \right) \times 2$$





$\frac{2}{8}$  is equivalent to  $\frac{1}{4}$





Have a think



$$\frac{1}{4} = \frac{\boxed{\phantom{00}}}{8} = \frac{3}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{20} = \frac{\boxed{\frac{12}{40}}}{\boxed{\frac{40}{40}}}$$

Have a think



What do you notice?

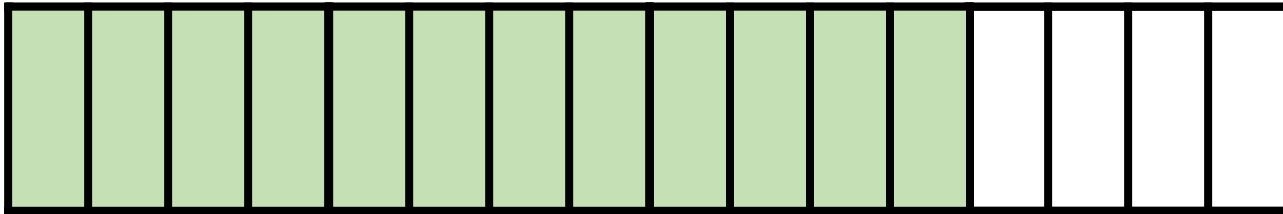
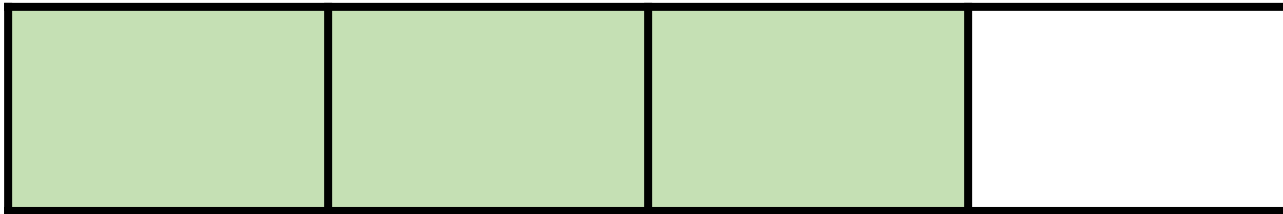
$$\begin{array}{cccccc}
 & \times 2 & \times 3 & \times 5 & \times 10 & \\
 \frac{1}{4} & = & \frac{2}{8} & = & \frac{3}{12} & = & \frac{5}{20} & = & \frac{10}{40} & \div 4 \\
 \times 4 & & & & & & & & & \\
 & \times 2 & \times 3 & \times 5 & \times 10 & 
 \end{array}$$

The diagram shows a sequence of equivalent fractions:  $\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{5}{20} = \frac{10}{40}$ . Blue arrows indicate the operations used to move from one fraction to the next:  $\times 2$ ,  $\times 3$ ,  $\times 5$ , and  $\times 10$  for the numerators, and  $\times 4$  for the denominators. A final  $\div 4$  is shown at the end of the sequence.

$$\begin{array}{r} 3 \\ - \\ 4 \end{array} = \begin{array}{r} 12 \\ - \\ \square \end{array}$$

$\times 4$

$\times 4$



Have a think



$$\begin{array}{r} 3 \\ \hline 4 \end{array} = \begin{array}{r} \square \\ \hline 12 \end{array}$$

$\times 3$

$\times 3$

$$\begin{array}{r} \square \\ \hline 5 \end{array} = \begin{array}{r} 9 \\ \hline 15 \end{array}$$

$\div 3$

$\div 3$



**YOUR TURN**

Have a go at questions  
1 - 4 on the worksheet





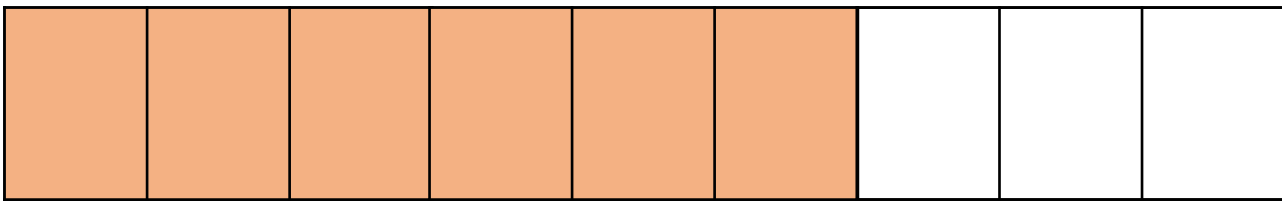
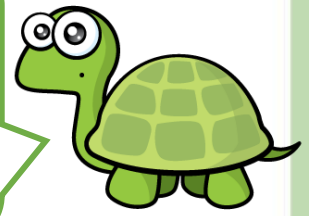
Have a think

$$\frac{2}{3} = \frac{8}{9}$$

$\times 3$

$\times 3$

I added 6 to both the numerator and denominator.



$$\frac{12}{15} = \frac{40}{\square} = \frac{\square}{5}$$

$\div 3 \times 10$

$\div 8 \times 10$

The diagram shows the fraction 12/15 being simplified to 4/5 by dividing both numerator and denominator by 3. This is indicated by a blue arrow from 12 to 4 and another from 15 to 5, with the label "÷ 3" above the arrows. The fraction 4/5 is then expanded to 40/50 by multiplying both numerator and denominator by 10, indicated by a blue arrow from 4 to 40 and another from 5 to 50, with the label "× 10" above the arrows. The final fraction 40/50 is written with a square box in the denominator. The label "÷ 8 × 10" is positioned below the 40/50 fraction, with a blue arrow pointing from 40 to 5 and another from 50 to 5, suggesting a further simplification step.

**YOUR TURN**

Have a go at the rest of  
questions on the  
worksheet

