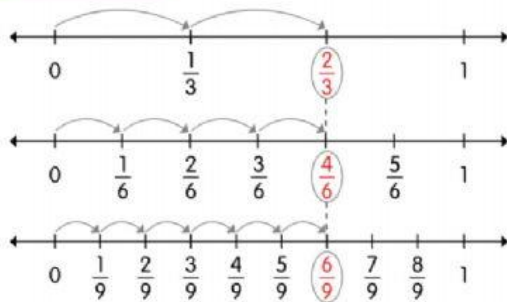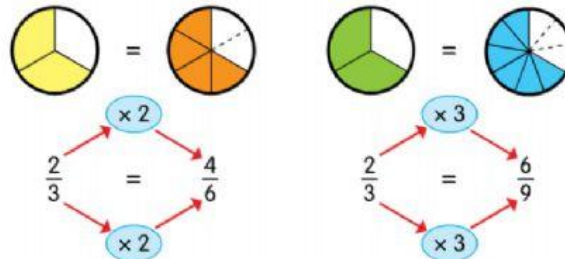We can also represent equivalent fractions using other methods... For example, Number lines, multiplication and division (simplifying).
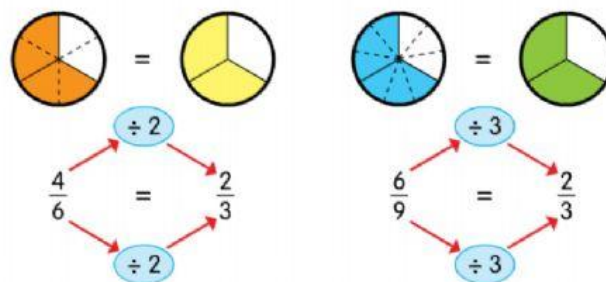
Number lines can be used to show fractions.

We can **multiply** the numerator and the denominator by the same number to find an equivalent fraction.

$$\frac{2}{3} = \frac{4}{6}$$

$\times 2$ $\times 2$

$$\frac{2}{3} = \frac{6}{9}$$

$\times 3$ $\times 3$

We can also find equivalent fractions by **simplifying** fractions.

$$\frac{4}{6} = \frac{2}{3}$$

$\div 2$ $\div 2$

$$\frac{6}{9} = \frac{2}{3}$$

$\div 3$ $\div 3$

$\frac{2}{3}$ cannot be further simplified.

So, $\frac{2}{3}$ is the simplest form of $\frac{4}{6}$ and $\frac{6}{9}$.

> We simplify fractions by dividing the numerator and the denominator by the same number.

EXERCISES

Find the next 8 equivalent fractions of the following fractions.

(a) $\frac{1}{2} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box}$

(b) $\frac{1}{3} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box} = \frac{\Box}{\Box}$

Write each fraction in its simplest form.

(a) $\frac{5}{10} = \frac{\Box}{\Box}$

(b) $\frac{8}{10} = \frac{\Box}{\Box}$

(c) $\frac{4}{12} = \frac{\Box}{\Box}$

(d) $\frac{9}{12} = \frac{\Box}{\Box}$

(e) $\frac{2}{8} = \frac{\Box}{\Box}$

(f) $\frac{6}{9} = \frac{\Box}{\Box}$