

Simplifying fractions

To **simplify** (or 'reduce') a fraction, divide the numerator and denominator by their **highest common factor**. The new fraction has the same value but uses smaller numbers.

→ $8/12 = 2/3$ (divide top and bottom by 4).

→ $15/25 = 3/5$ (divide top and bottom by 5).

HOW TO ANSWER TODAY

- **Equivalent fractions.** Whatever you multiply (or divide) the bottom by, do the same to the top.

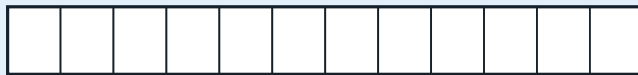
$2/5 = ?/15$. Bottom $\times 3$, so top $\times 3 \rightarrow 6/15$

- **Lowest terms.** Divide top and bottom by the same number until you can't go any further.

$12/18 \div 6 \rightarrow 2/3$

TRY IT ON THE LINE

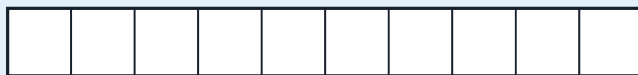
Shade the fraction on the top strip; then find the simplest equivalent fraction by re-shading on a strip with FEWER parts.



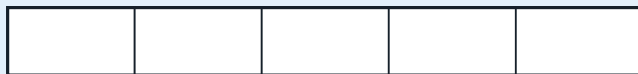
shade $8/12$



simplest form: ____ / 3



shade $6/10$



simplest form: ____ / 5

1. Top strip: shade 8 of 12 cells.
2. Second strip: shade the same amount on a thirds strip – how many thirds is that?
3. Third strip: shade 6 of 10 cells.
4. Bottom strip: simplest form on a fifths strip.

PRACTICE

- 1 On a sponsored cycle, Tadhg plans to complete **28** laps of the cycle path in Phoenix Park. He has finished **$3/4$** of his laps so far. Fill in the missing number to show how many laps he has cycled: **$3/4 = ?/28$** .

- 2 In 5th class, **$11/12$** of the pupils volunteered for the school-bag rota for the term. The teacher writes the same fraction with **60** as the denominator on the chart. Fill in the missing number: **$11/12 = ?/60$** .

