Lesson 33

Simplifying fractions

MODULE 3 · FRACTIONS, DECIMALS AND PERCENTAGES NUMBER

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.

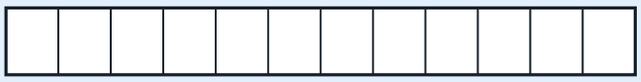
→ **8/12 = 2/3** (divide top and bottom by 4).
→ **15/25 = 3/5** (divide top and bottom by 5).

HOW TO ANSWER TODAY

- **Equivalent fractions.** Whatever you multiply (or divide) the bottom by, do the same to the top.
  2/5 = ?/15. Bottom × 3, so top × 3 → 6/15
- **Lowest terms.** Divide top and bottom by the same number until you can't go any further.
  12/18 ÷ 6 → 2/3

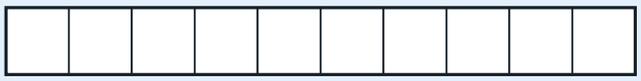
TRY IT ON THE LINE

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**.