

Lesson 29 **NUMBER**

Adding and subtracting fractions with unlike denominators

WHAT THIS LESSON TEACHES

To add or subtract fractions with unlike denominators, rename them so both have the same bottom number and the parts are the same size.

→ $1/4$ and $1/3$ both become twelfths: $3/12$ and $4/12$

→ $1/3$ renamed as twelfths is $4/12$ (x4 on top and bottom)

MODEL THIS ON THE BOARD

ADDING FRACTIONS WITH STRIPS

- 1 Find the common denominator for $2/5$ and $3/10$ which is **10**.
- 2 Rename $2/5$ as **$4/10$** by multiplying top and bottom by **2**.
- 3 Add the numerators **4** plus **3** to get **$7/10$** .
- 4 The answer **$7/10$** is already simple.

ANSWER KEY

Scaffold: visual check on the page

Q1: $3/14$

Q2: $3/4$ kg

Q3: $9/14$

Q4: $9/10$ litre

Q5: $1/8$

a) Sometimes — Only the first needs renaming as $2/6$.

b) Always — The parts must match in size before subtracting.

c) Never — They have unlike denominators so renaming is needed.

d) Sometimes — It depends if one already matches the common denominator.

EXTENSION SHEET · STRETCH ANSWERS

S1: $17/12$

S2: $13/28$

S3: $25/18$

S4: $13/10$

S5: $13/10$