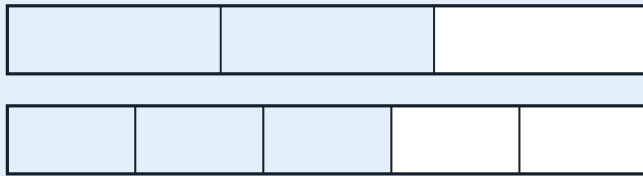


# Comparing and ordering fractions with unlike denominators

MODULE 3 · FRACTIONS, DECIMALS AND PERCENTAGES NUMBER

To compare fractions with different bottoms, rewrite them with a **common denominator**, then compare the top numbers.



- $2/3$  vs  $3/5$  →  $10/15$  vs  $9/15$  →  **$2/3$  is greater.**
- A common denominator is a common multiple of the two bottoms.

## WHICH IS GREATER, $2/3$ OR $3/5$ ?

- 1 Common denominator of 3 and 5 is **15**.
- 2  $2/3 = 10/15$ ;  $3/5 = 9/15$ .
- 3  $10/15 > 9/15$ , so  **$2/3$  is greater.**

## HOW TO ANSWER TODAY

- **Compare fractions.** Make the bottom numbers (denominators) the same first. Then compare the top numbers.

$1/4$  and  $1/3$  →  $3/12$  and  $4/12$  →  $1/4 < 1/3$

## WARM-UP

Insert  $<$ ,  $>$  or  $=$

- a.  $1/4$    $1/12$       b.  $1/5$    $1/8$       c.  $1/2$    $1/5$       d.  $1/12$    $1/5$

## PRACTICE

- 1 At break time, Niamh, Cian and Saoirse each open a packet of biscuits to share. Niamh has  $11/12$  of her packet left, Cian has  $7/8$  of his packet left, and Saoirse has  $2/5$  of her packet left. Order the amounts left from smallest to largest.
- 2 Three 5th class teams played in a Cumann na mBunscol blitz at the county grounds. Cara's team won  $9/10$  of their matches, Tadhg's team won  $2/5$ , and Niamh's team won  $7/10$ . Order the teams' win fractions from smallest to largest.

## CHALLENGE

- 1 In the school polytunnel, 5th class fill four seed trays with compost. The first tray is  $3/4$  full, the second is  $7/8$  full, the third is  $1/5$  full and the fourth is  $11/12$  full. Order the trays from least full to most full.  
 Order from smallest to largest:  $3/4, 7/8, 1/5, 11/12$
- 2 5th class are tracking how full the bird feeder at the classroom window gets each week. In four weeks the feeder fills to  $9/10$ ,  $2/5$ ,  $7/10$  and  $1/8$  of the way up. Order these fractions from smallest to largest.