

Factors, multiples, primes and composites

MODULE 2 · OPERATIONS AND COMPUTATIONAL FLUENCY NUMBER

★ STRETCH PROBLEMS

- 1 Cian is building a model bridge for STEM week and has 38 lolly sticks to arrange in equal rows along the deck. He wants to know if 38 is a prime number so he can decide how to split the sticks into rows. Is 38 a prime number? Answer yes or no, and give a reason.
- 2 Mr Ó Briain has 48 weather stickers to arrange in equal rows on the 5th class weather chart. He wants to know every row size that would use all 48 stickers with none left over. List every factor of 48 in order from smallest to largest.
- 3 Mr Ó Briain wants to arrange 38 chairs in the school hall into equal rows for the 5th class assembly. He needs to know every possible row size that divides 38 exactly. List every factor of 38 in order from smallest to largest.
- 4 Niamh is sorting the school tour fund and notices that this week's total comes to 48 euro coins. She wonders if 48 is a prime number. Is 48 a prime number? Answer yes or no, and give a reason.
- 5 At the cake sale for the Junior Infants new playground, 5th class want to arrange 18 buns into equal rows on the display tray. List every factor of 18 in order from smallest to largest to show all the possible row sizes.

● INVESTIGATE

Which numbers have the most factors?

List the factors of every number from 1 to 30. Which number has the **most** factors? Do you notice anything about the numbers with many factors? Which numbers have exactly two?



$$\frac{1}{2}$$



$$\frac{1}{2}$$

NUMBER



$$\frac{1}{2}$$

