

# Order of operations – brackets, division, multiplication, addition, subtraction

MODULE 2 · OPERATIONS AND COMPUTATIONAL FLUENCY NUMBER

BIDMAS reminds us of the order to do operations: **B**rackets, **I**ndices, **D**ivision and **M**ultiplication, **A**ddition and **S**ubtraction.

→  $3 + 4 \times 5$  → multiply first:  $3 + 20 = 23$  (not 35).

→  $(3 + 4) \times 5$  → brackets first:  $7 \times 5 = 35$ .

## HOW TO ANSWER TODAY

- **Order of operations.** Brackets first, then  $\times$  and  $\div$ , then  $+$  and  $-$ . Inside each group, work LEFT to RIGHT.

$$3 + 2 \times 5 \rightarrow 3 + 10 = 13 \cdot (4 + 2) \times 3 \rightarrow 6 \times 3 = 18$$

## WARM-UP

a.  $107 \times 9 + 9 =$

b.  $66 \times 7 + 9 =$

c.  $39 + 5 \times 5 =$

d.  $36 \times 5 - 3 =$

## PRACTICE

- 1 On sports day, 5th class start with **38** points from the morning races. They gain **5** more points in the relay, then lose **3** points in each of **3** final events. How many points does the class finish with?

- 2 Aoife has **55** autumn leaves saved in her art folder. She gathers **7** more bunches in the school yard, with **9** leaves in each bunch, but **2** leaves get torn and thrown away. How many usable leaves does she have for the art lesson?

## CHALLENGE

- 1 For an autumn art lesson, Oisín gathers **9** leaves from each of the **9** trees beside the school yard, but **4** of the leaves from each tree are too torn to use. How many usable leaves does he have, worked out as  $9 \times (9 - 4)$ ?

- 2 At break time, Tadhg opens a new pack of **5** biscuits and adds **10** more from a tin. He then shares them evenly between **10** pupils, minus the **7** who already had a snack. How many biscuits does each pupil get, working out  $(5 + 10) \times (10 - 7)$ ?