

# Pie charts and proportional representation

MODULE 9 · DATA AND CHANCE DATA &amp; CHANCE

## HOW TO ANSWER TODAY

- **Pie chart.** A full circle =  $360^\circ$ . A segment's angle  $\div 360^\circ$  gives its fraction; multiply by  $360^\circ$  to go the other way.

### STRETCH PROBLEMS

- 1 Aoife's class tally the cars by colour at the school gate at home time and draw a pie chart. One segment is  $120^\circ$  and another is  $112^\circ$ . What is the angle of the third segment, remembering the whole circle is  $360^\circ$ ?
- 2 Saoirse makes a pie chart of the laps three pupils ran in PE over a month. One segment is  $115^\circ$  and another is  $121^\circ$ . What is the angle of the third segment, knowing the whole circle is  $360^\circ$ ?
- 3 During the October reading challenge, 6th class draw a pie chart of the books read by three pupils. One segment measures  $110^\circ$  and another measures  $70^\circ$ . What is the angle of the third segment, remembering that the whole circle is  $360^\circ$ ?
- 4 6th class made a pie chart of the books each child read in the October reading challenge.  $\frac{1}{5}$  of the pupils chose adventure stories as their favourite. What angle does that segment cover, out of  $360^\circ$  in total?  
 In a pie chart of class survey results,  $\frac{1}{5}$  of pupils chose option A. What angle does that segment cover, out of  $360^\circ$  in total?
- 5 Cian draws a pie chart on the classroom working wall showing the weather over a fortnight. The sunny segment measures  $78^\circ$  and the cloudy segment measures  $146^\circ$ , with rainy days making up the rest of the circle. What is the angle of the rainy segment, remembering that the whole circle is  $360^\circ$ ?