Enlargement and scale factor

MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE REVIEW

HOW TO ANSWER TODAY

- **Transformations.** Slide without turning → translation. Flip (mirror) → reflection. Turn → rotation.
  Triangle slid left → translation · Letter flipped → reflection

STRETCH PROBLEMS

1. Saoirse is painting letters onto papier-mâché masks for the 5th class school play. She paints a letter d on a clear plastic sheet, then flips the sheet over to print it on a mask, and now the letter d looks like a letter b after the move. Is the transformation a translation, a reflection or a rotation?

   > Name the transformation described: the letter d looks like a letter b after the move. (Choose translation, reflection or rotation.)

2. In art class, 5th class are making a scale drawing of the school yard. Saoirse draws a shape and its image so that they meet along a fold line and match exactly when the page is folded together. Is the transformation a translation, a reflection or a rotation?

   > Name the transformation described: a shape and its image meet along a fold line and match exactly when folded together. (Choose translation, reflection or rotation.)

3. Saoirse is designing a mosaic for the school library wall. She draws a tile pattern, then flips the shape across the vertical line through its centre to make the next tile. Is this transformation a translation, a reflection or a rotation?

   > Name the transformation described: the shape flips across the vertical line through its centre. (Choose translation, reflection or rotation.)

4. Mr Ó Briain is marking out the soccer pitch on the school field for 5th class. He says the markings on the far half of the pitch are the same as the near half, but the shape flips across the horizontal line of symmetry running through the centre circle. Is this a translation, a reflection or a rotation?

   > Name the transformation described: the shape flips across the horizontal line of symmetry. (Choose translation, reflection or rotation.)

5. Tadhg is painting a butterfly stencil on the side of the new raised bed in the school garden. He notices the butterfly flips across the vertical line through its centre, so the left wing matches the right wing exactly. Is this transformation a translation, a reflection or a rotation?

   > Name the transformation described: the shape flips across the vertical line through its centre. (Choose translation, reflection or rotation.)