

# Turns – quarter, half and three-quarter turns

MODULE 8 · SYMMETRY, LOCATION AND TRANSFORMATION SHAPE & SPACE

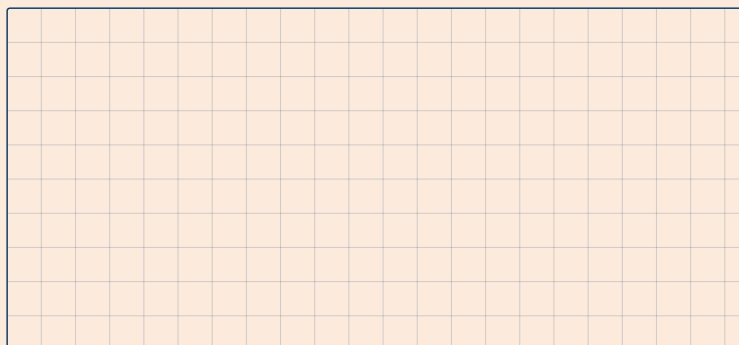
## HOW TO ANSWER TODAY

- **Classify an angle.** Acute  $< 90^\circ$  · right =  $90^\circ$  · obtuse  $90^\circ$ – $180^\circ$  · straight =  $180^\circ$  · reflex  $> 180^\circ$ .  
 $75^\circ \rightarrow$  acute ·  $120^\circ \rightarrow$  obtuse ·  $220^\circ \rightarrow$  reflex
- **Transformations.** Slide without turning  $\rightarrow$  translation. Flip (mirror)  $\rightarrow$  reflection. Turn  $\rightarrow$  rotation.  
 Triangle slid left  $\rightarrow$  translation · Letter flipped  $\rightarrow$  reflection

## TRY IT ON THE LINE

Continue and describe each pattern.

Patterns



1. Draw the next three shapes in the pattern.
2. Describe the rule of the pattern in words.
3. Make your own repeating pattern and swap to read a friend's.

## PRACTICE

- 1 Aoife paints a shape on one half of the wall-ball court in the yard, then paints a matching shape on the other half so that the shape flips across the vertical line through its centre. Name the transformation she has used. Choose from translation, reflection or rotation.

- 2 Cian is drawing a homemade Snakes and Ladders board on a sheet of card. He folds the card along the middle and notices that the shape flips across the horizontal line of symmetry. Is this transformation 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.)