

Primary 3 · Mathematics · Maths General Ability I

Sequences and grids

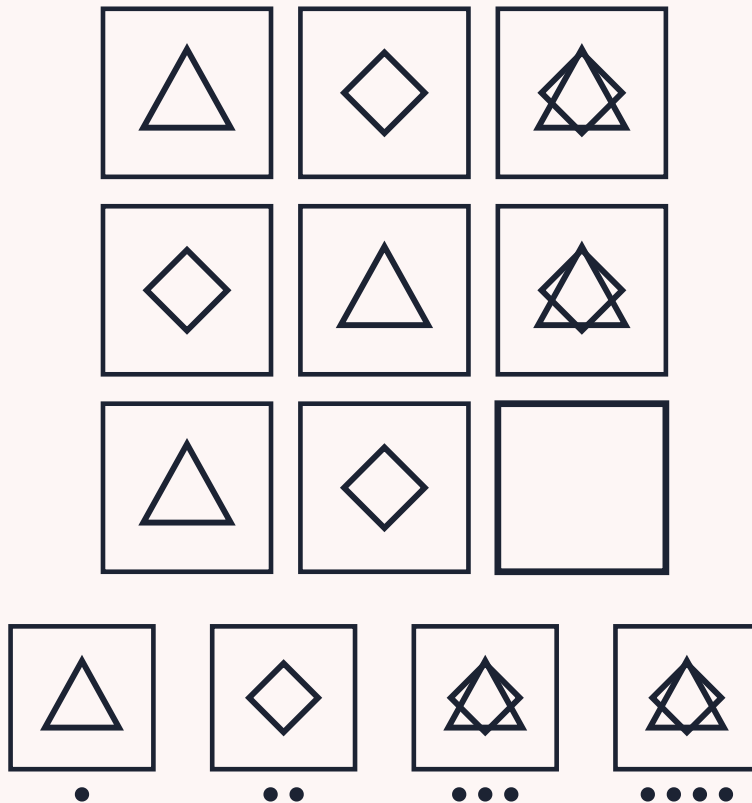
Time **25 min** Marks **7** Questions **7**

Answers are printed in red after each question, with the working where it matters. Marks in brackets show how a marker would split them.

Find the missing figure

Questions 1 to 7 carry 1 mark each.

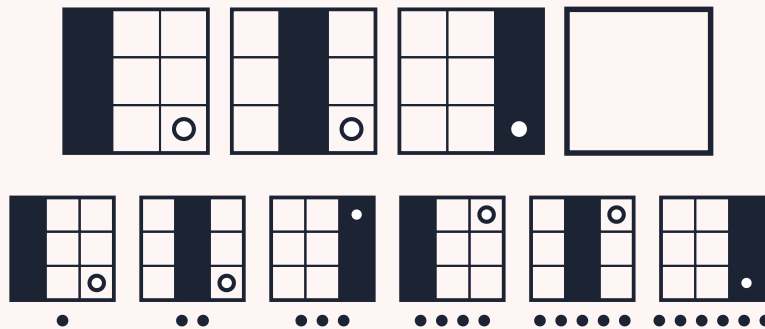
- 1 Each row combines the shapes in its first two boxes. Which figure completes the grid? [1]
Write the number of the figure that completes it. The choices are drawn under the grid.



1. Row 1: a triangle, then a diamond, then both drawn together.
2. Row 2: a diamond, then a triangle, then both.
3. Row 3 must end with both shapes together, which is option (3).

ANSWER **3**

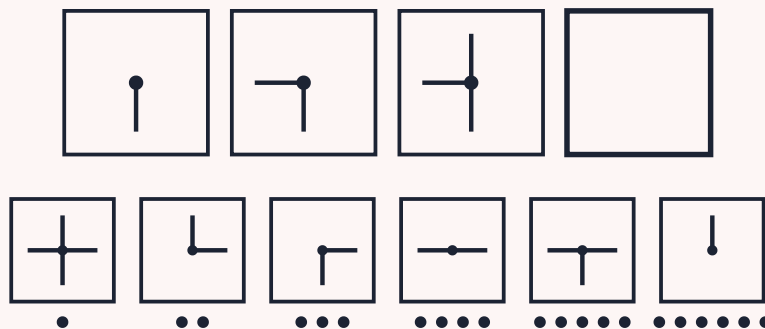
- 2 The black column moves one place to the right each step, and the white dot does not move. Which figure comes next? [1]
Write the number of the figure that completes it. The choices are drawn under the grid.



1. The column stands in the left column, then the middle, then the right.
2. The next step sends it back to the left column.
3. The dot stays in the bottom-right small square the whole time, so the answer is option (4).

ANSWER 4

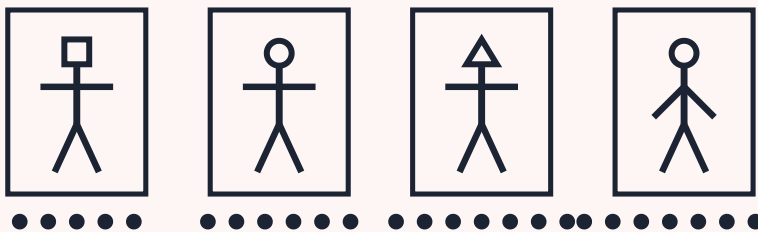
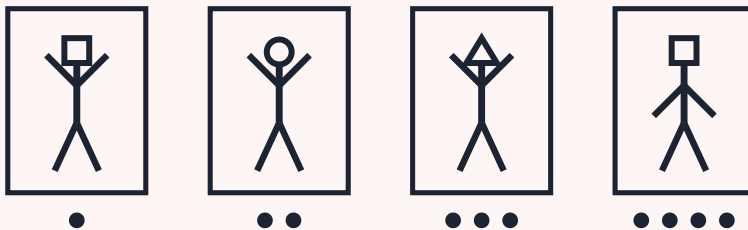
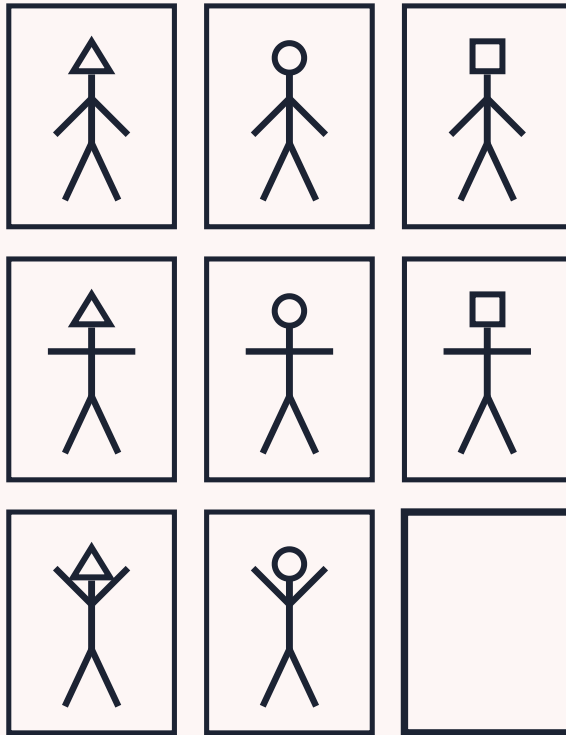
- 3 One new line is added at each step, and each new line points the next way round the clock. Which figure comes next? [1]
Write the number of the figure that completes it. The choices are drawn under the grid.



1. Step 1 has a line pointing down. Step 2 adds one pointing left. Step 3 adds one pointing up.
2. The next line points right, so all four directions are present. That is option (1).

ANSWER 1

- 4 In every row the head shape runs triangle, circle, square. In every column the arms run down, straight out, up. Which figure completes the grid?
Write the number of the figure that completes it. The choices are drawn under the grid.



1. The bottom row already has a triangle head and a circle head, so the last head is a square.
2. The right column already has arms down and arms straight out, so the last arms point up.
3. A square head with arms up is option (1).

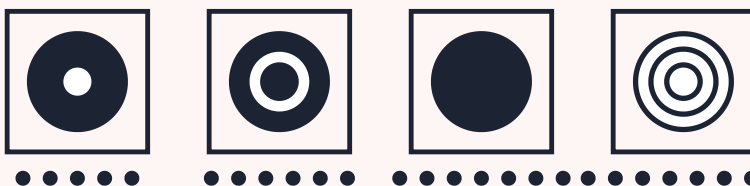
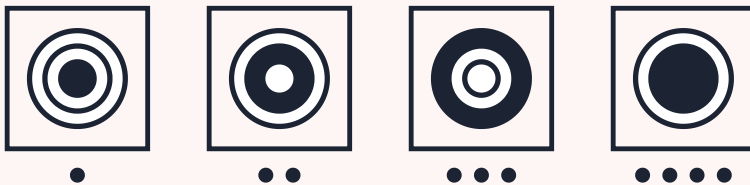
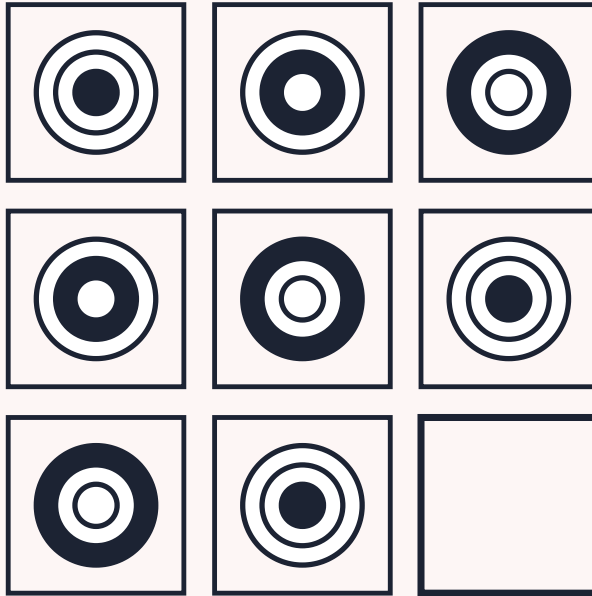
ANSWER 1

[1]

- 5 Each ring is black in exactly one box of every row and every column. Which figure completes the grid?

[1]

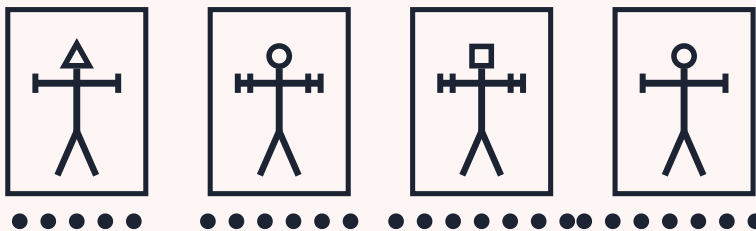
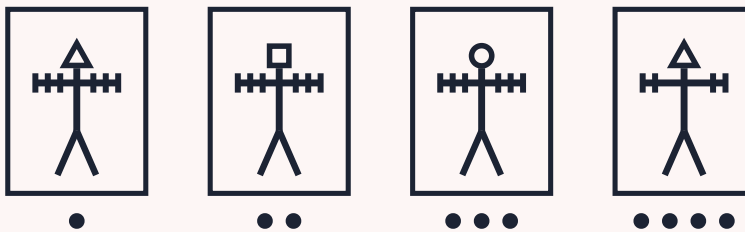
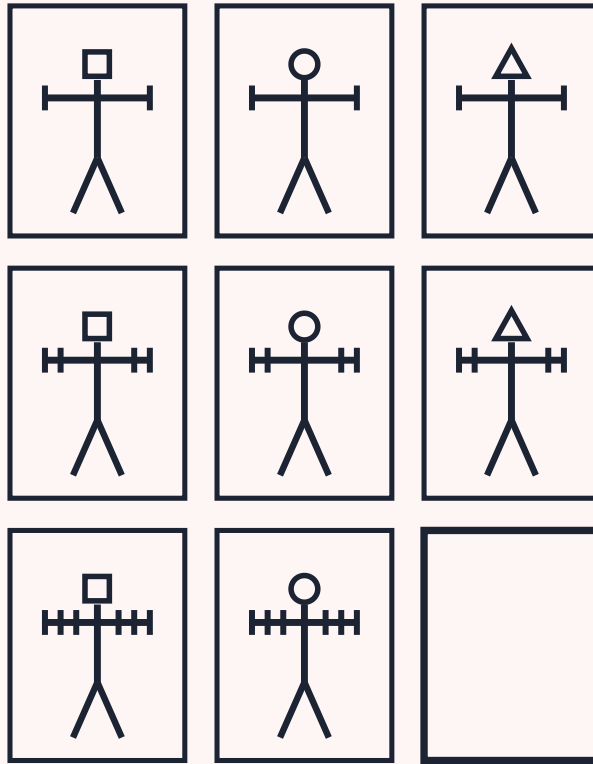
Write the number of the figure that completes it. The choices are drawn under the grid.



1. In row 1 the black ring is the inner one, then the middle one, then the outer one.
2. Row 2 starts with the middle ring and row 3 starts with the outer ring.
3. The bottom-right box is the only one left for the inner ring. That is option (1).

ANSWER 1

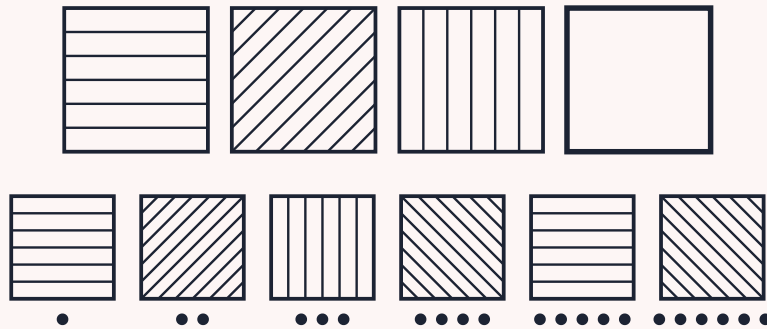
- 6 The head shape runs square, circle, triangle along every row. The number of weights on the bar grows by one down every column. Which figure completes the grid? Write the number of the figure that completes it. The choices are drawn under the grid. [1]



1. The bottom row needs a triangle head.
2. The right column has 1 weight, then 2, so the last bar carries 3 weights on each end.
3. A triangle head with 3 weights is option (1).

ANSWER 1

- 7 The stripes turn by the same amount at each step. Which figure comes next? [1]
Write the number of the figure that completes it. The choices are drawn under the grid.



1. The stripes run straight down, then diagonally down to the right, then straight across.
2. Each turn is an eighth of a full turn, so the next stripes run diagonally down to the left.
3. That is option (4).

ANSWER 4

Marking notes

- 1 mark for the correct option. The working shows the rule the pupil should be able to state.
- The small figures under each question in this key are the options, numbered in rows.

END OF PAPER