

# Logical Reasoning

## Test 4



### Solutions Booklet

#### Instructions

This test contains **12 questions**. There is an overall time limit of **15 minutes** for the test or **70 seconds** per question.

In each question you will be presented with grid of symbols. You will need to determine which of the possible answers best matches the missing symbol in the grid denoted by a question mark.

Each question will have 1 correct answer from a choice of 5 possible answers, and you must select the most correct option.

Try to find a time and place where you will not be interrupted during the test. The test will begin on the next page.

**Q1** What replaces the question mark?

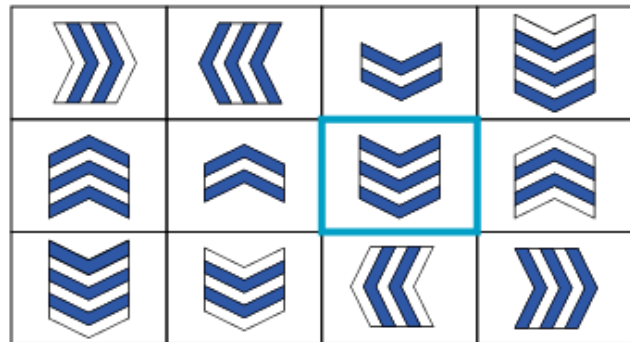
	1		
	5		3
?			8
7	5		9
		8	

4		4	
	4		4
4		4	4
4		4	4
	4		4

**Rule 1:** From left to right, the black square moves three spaces counterclockwise, this continues onto the next row.

**Rule 2:** From left to right, the number increases by 1 inverts horizontally and is placed opposite to the black square. Alternatively, the number increases by 1, mirrors horizontally and then moves anticlockwise three places around the perimeter of the square.

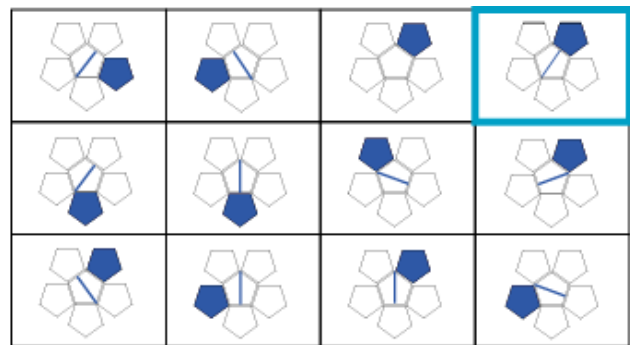
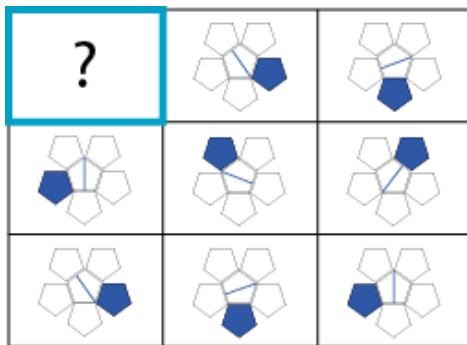
**Q2** What replaces the question mark?



**Rule 1:** From left to right, the symbol rotates 90° clockwise, this continues onto the next row.

**Rule 2:** From left to right, the colours alternate, this continues onto the next row.

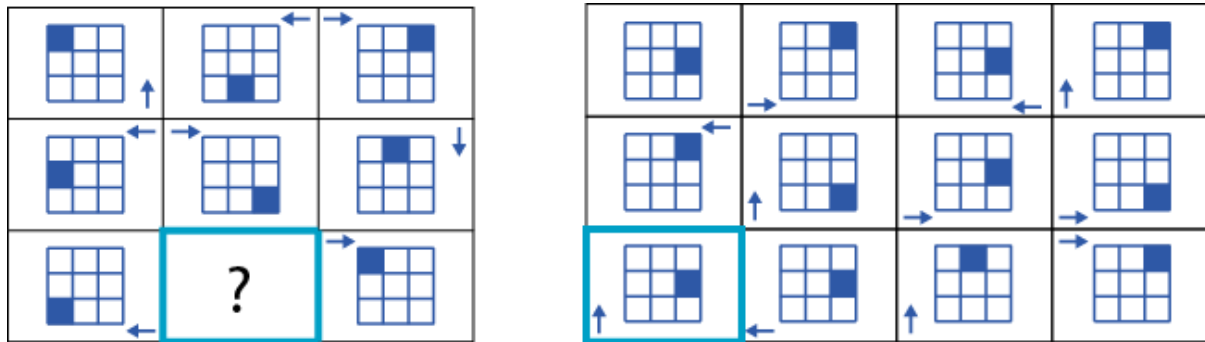
**Q3** What replaces the question mark?



**Rule 1:** From left to right, the shaded pentagon moves one place clockwise, this continues onto the next row.

**Rule 2:** From left to right, the line in the central pentagon rotates  $72^\circ$  counterclockwise (i.e. begins at the next point of the pentagon), this continues onto the next row.

**Q4** What replaces the question mark?



**Rule 1:** From top to bottom, the shaded box moves one place counterclockwise, this continues onto the next row.

**Rule 2:** From left to right, the arrow points to the corner where the next arrow will appear, this continues onto the next row.

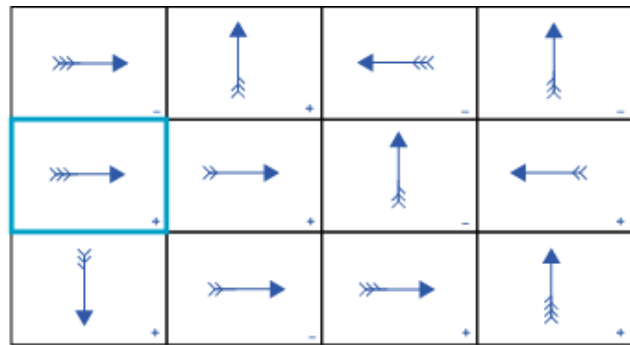
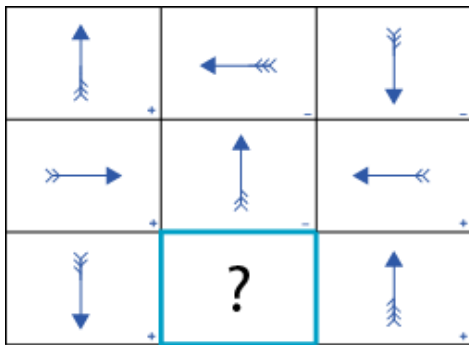
**Q5** What replaces the question mark?

?	⌌	⌌
⌌	⌌	⌌
⌌	⌌	⌌

⌌	⌌	⌌	⌌
⌌	⌌	⌌	⌌
⌌	⌌	⌌	⌌

**Rule 1:** Starting from the bottom right, from bottom to top, the shapes change by vertical and horizontal reflection in alternation.

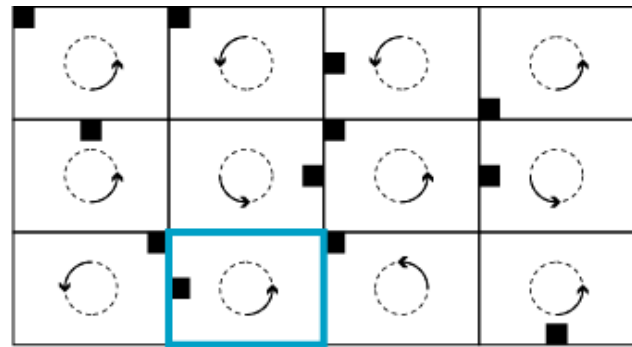
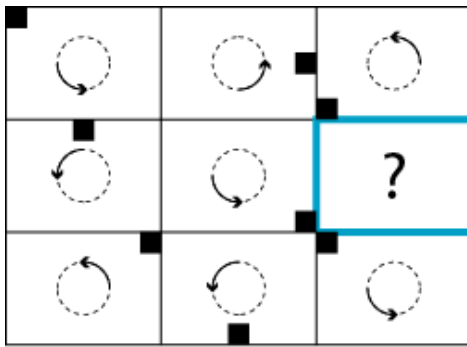
**Q6** What replaces the question mark?



**Rule 1:** From left to right, the arrow rotates 90° counterclockwise, this continues onto the next row.

**Rule 2:** From left to right, the symbol on the bottom right of the box indicates whether to add or remove a notch to/from the next arrow. This continues onto the next row.

**Q7** What replaces the question mark?

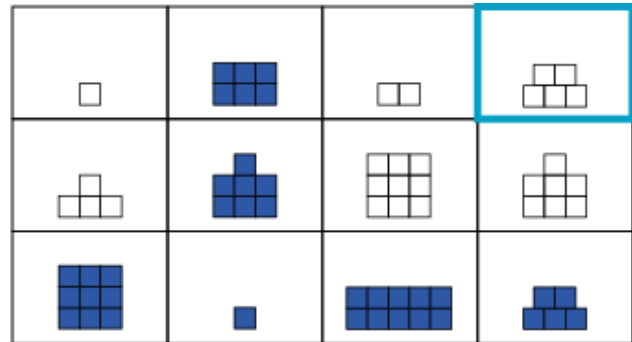
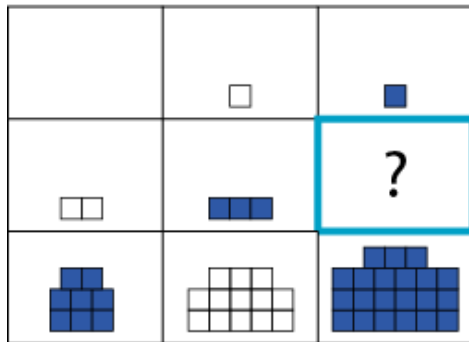


**Rule 1:** From left to right, the arrow rotates 90° counter clockwise. This pattern continues onto the next row.

**Rule 2:** From left to right, the black box moves 3 places clockwise (the places being: top left, top, middle, top right, middle right, bottom right, bottom middle, bottom left and left middle). This pattern continues onto the next row. Alternatively from top to bottom, the black square moves one place clockwise each time.



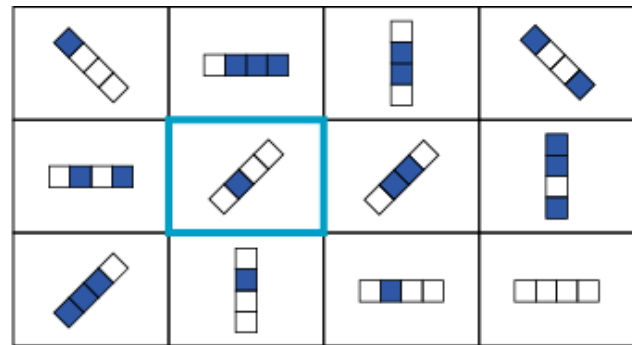
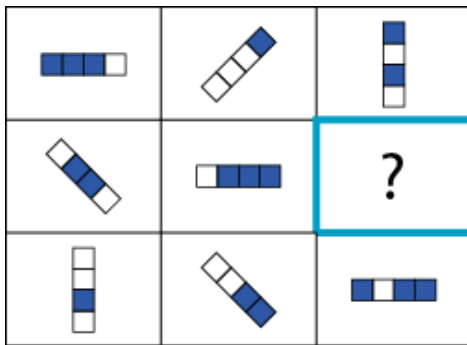
**Q8** What replaces the question mark?



**Rule 1:** From left to right, the colour of the squares alternates from blue to white. This pattern continues onto the next row.

**Rule 2:** The number of squares in each box is equal to the total number of squares in the two previous boxes. This pattern continues onto the next row.

**Q9** What replaces the question mark?



**Rule 1:** From left to right, the symbol rotates 45° counterclockwise. This pattern continues onto the next row.

**Rule 2:** Each row and each column must have a total of six blue squares and 6 white squares.

**Q10** What replaces the question mark?

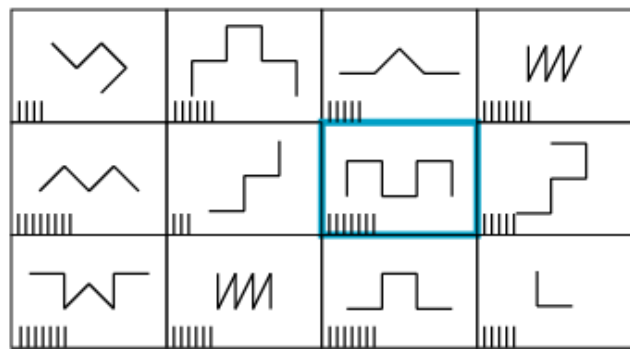
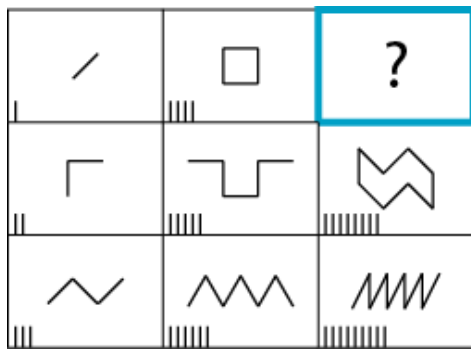
▲	▼▲	▼▲▼
▼	▲▼	▲▼▲
?	▼▲	▼▲▼

▲▼▼	▲▼	▼▼▲	▼
▼▲	▲▲▼	◀	◀▲▶
◀▼	▶	▲▲	▲

**Rule 1:** Each row and column, the arrow alternates from up to down and vice-versa.

**Rule 2:** From left to right, each column increases by one more arrow.

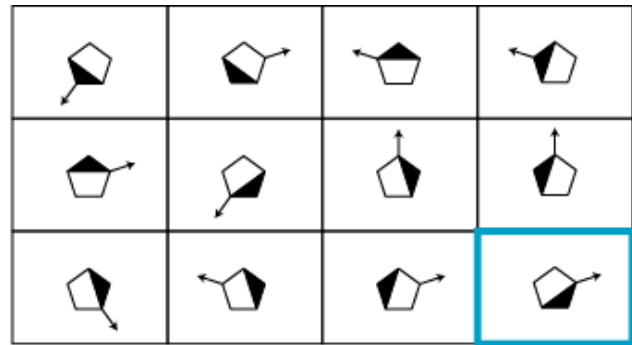
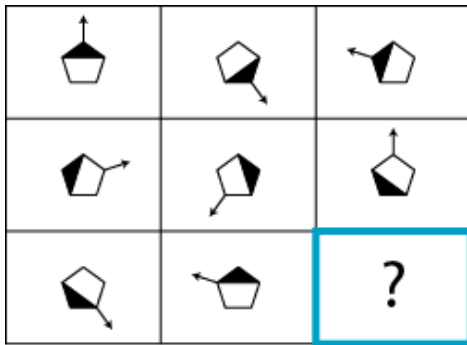
**Q11** What replaces the question mark?



**Rule 1:** From top to bottom, the number of notches in the bottom left corner increases by 1. This pattern continues onto the next column.

**Rule 2:** In each box, the number of lines in each shape corresponds to the number of notches.

**Q12** What replaces the question mark?



**Rule 1:** From left to right, the arrow moves two places clockwise. This pattern continues onto the next row.

**Rule 2:** From top to bottom, the highlighted area on the pentagon moves one place counterclockwise. This pattern continues onto the next line.

**End of test**