4.3 Matrices: 10-minute Pack

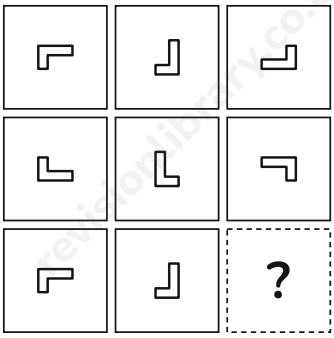
GL ASSESSMENT EP.N3 · Calculators not allowed · about 10 minutes

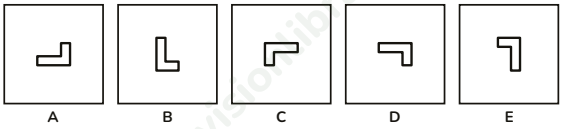
Total Marks

Name: _____ Date: ____ / ____ / _____

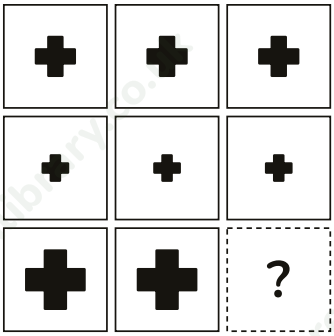
Answer ALL questions. Show all your working.

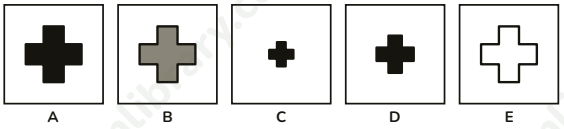
1 Study the 3x3 matrix of figures below. The bottom-right cell is missing, marked '?'. Which option completes the matrix?



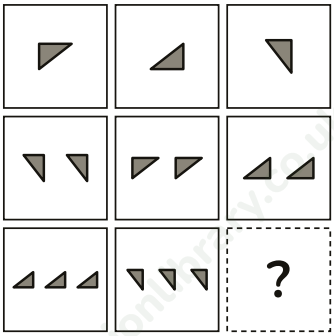


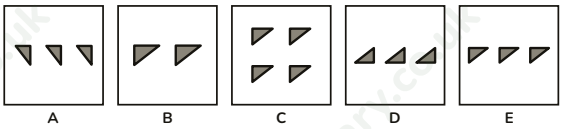
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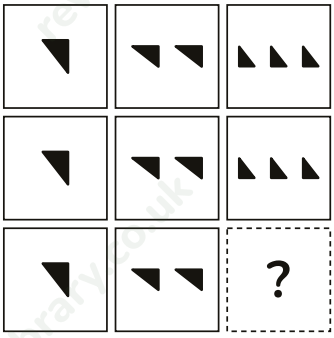


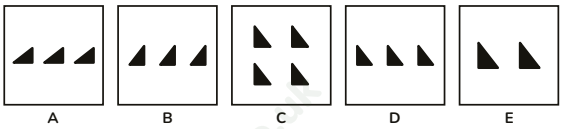
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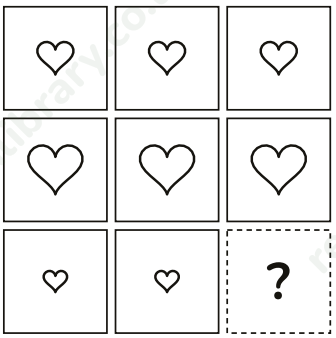
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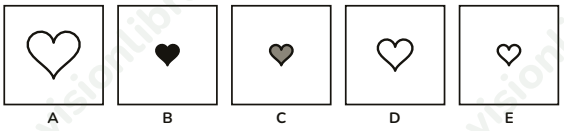




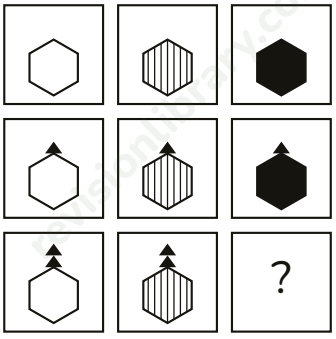
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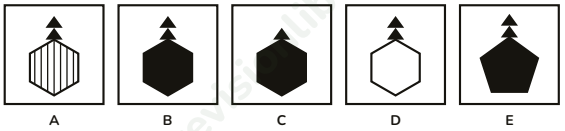
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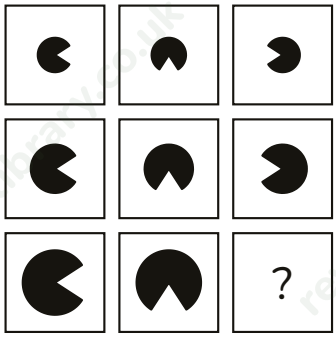


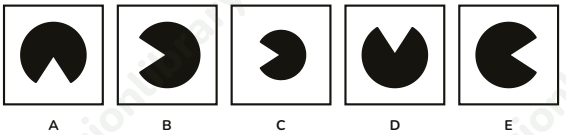
6 Study the 3x3 matrix of figures below. One rule links the figures across each row; a second rule links the figures down each column. The bottom-right cell is missing, marked '?'. Identify which option completes the matrix.





7





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Mark scheme · 4.3 Matrices: 10-minute Pack

Question 1

selects option A: the orientation is the same down each column and changes from column to column; the mirror image alternates in a checkerboard pattern, which gives A medium unshaded (white) L-shape (turned 270 degrees clockwise) (upright, the L-shape has its tall arm on the left, foot pointing right along the bottom) (cao) **B1**

Answer: A) A medium unshaded (white) L-shape (turned 270 degrees clockwise) (upright, the L-shape has its tall arm on the left, foot pointing right along the bottom)

Question 2

selects option A: the size is the same along each row and changes from row to row, which gives A large solid black cross (cao) **B1**

Answer: A) A large solid black cross

Question 3

selects option E: the orientation uses each value once in every row and every column; the number of shapes is the same along each row and changes from row to row, which gives Three small mid-grey right-angled triangles (turned 90 degrees clockwise) side by side in a row (upright, the right-angled triangle has its right angle at the bottom left, longer side along the bottom) (cao) **B1**

Answer: E) Three small mid-grey right-angled triangles (turned 90 degrees clockwise) side by side in a row (upright, the right-angled triangle has its right angle at the bottom left, longer side along the bottom)

Question 4

selects option D: the mirror image is the same down each column and changes from column to column; the orientation is the same down each column and changes from column to column; the number of shapes is the same down each column and changes from column to column, which gives Three small solid black right-angled triangles side by side in a row (upright, the right-angled triangle has its right angle at the bottom left, longer side along the bottom) (cao) **B1**

Answer: D) Three small solid black right-angled triangles side by side in a row (upright, the right-angled triangle has its right angle at the bottom left, longer side along the bottom)

Question 5

selects option E: the size is the same along each row and changes from row to row, which gives A small unshaded (white) heart with its point facing down (cao) **B1**

Answer: E) A small unshaded (white) heart with its point facing down

Question 6

Selects B: applies the row rule (shading white, hatched, black across columns) and the column rule (0,1,2 triangles above the hexagon down rows). **B1**

Answer: B

Question 7

Selects B: applies the row rule (mouth rotates 90 degrees clockwise across columns: right, down, left) and the column rule (size small, medium, large down rows). **B1**

Answer: B

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