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11+ PRACTICE PACK

# GL Assessment 11+ Non-Verbal Reasoning

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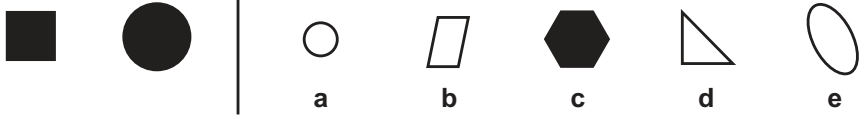
# Sample 11+ Assessment Test — Non-Verbal Reasoning

Allow 30 minutes to do this test and work as quickly and as carefully as you can. If you want to answer these questions in multiple-choice format, use the separate multiple-choice answer sheet. If you'd prefer to answer them in standard write-in format, circle the correct answer from the options **A** to **E**.

## Section 1 — Find the Figure Like the First Two

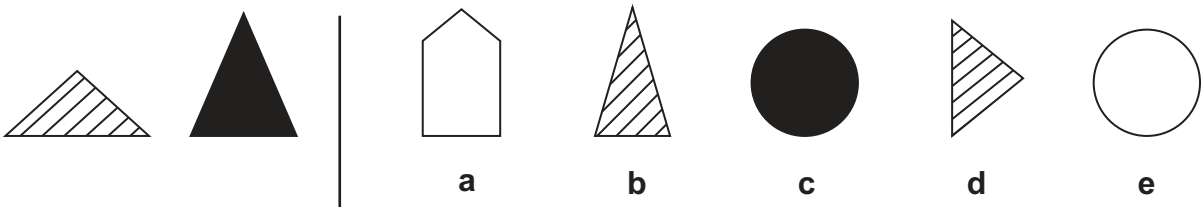
For each question below there are two figures that are like each other in some way.
Find which of the five figures on the right is most like the two figures on the left.

**Example:**

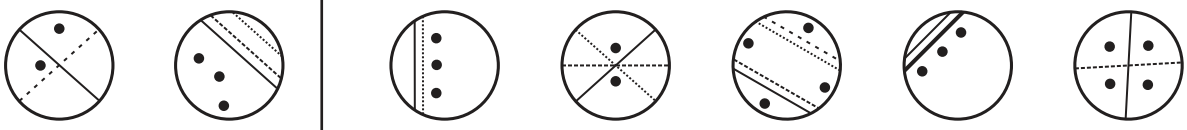



**Answer: c**

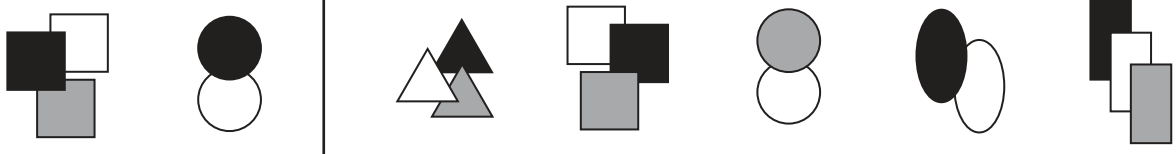
**1**



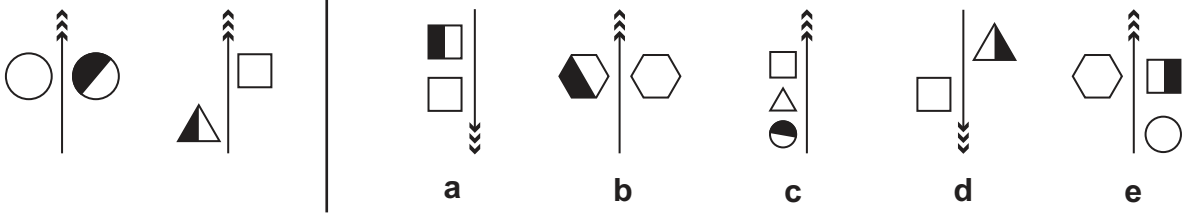

**2**




**3**

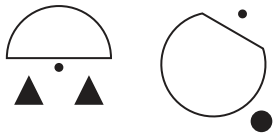



**4**



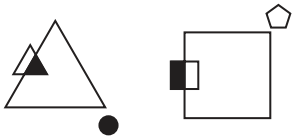

**Carry on to the next question →→**

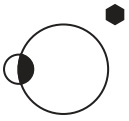
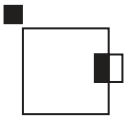
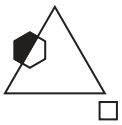
**5**



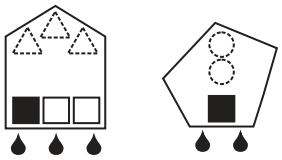
a  b  c  d  e 

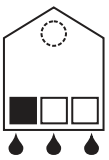
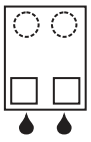
**6**



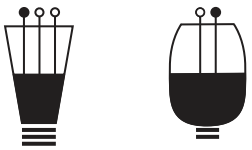
a  b  c  d  e 

**7**



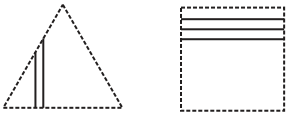
a  b  c  d  e 

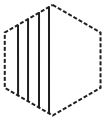
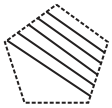
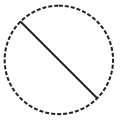
**8**



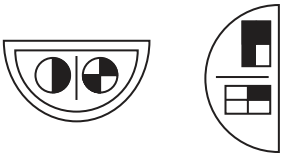
a  b  c  d  e 

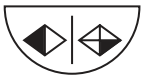
**9**



a  b  c  d  e 

**10**



a  b  c  d  e 

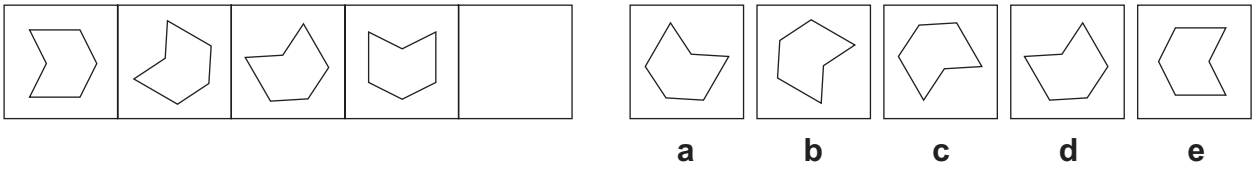
/ 10

**Carry on to the next question →→**

# Section 2 — Complete the Series

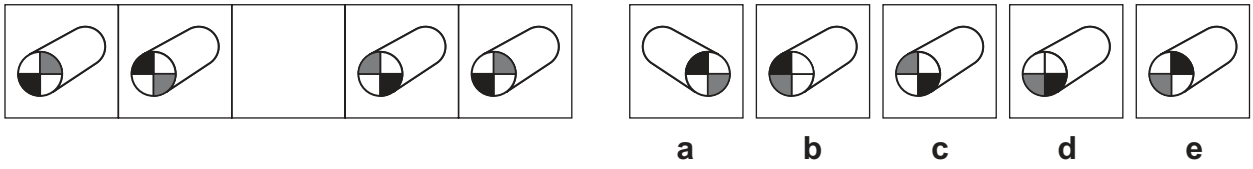
Each of these questions has five squares on the left that are arranged in order.
One of the squares is missing. One of the squares on the right should go in its place.
Find which one of the five squares on the right should go in place of the empty square.

**Example:**

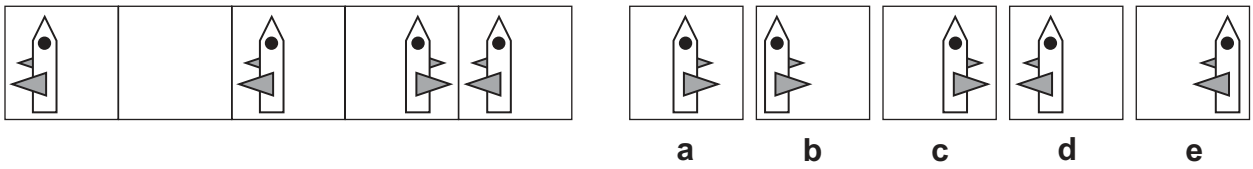



**Answer: a**

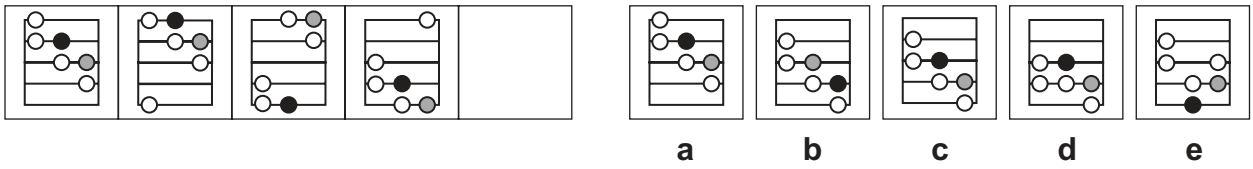
**1**



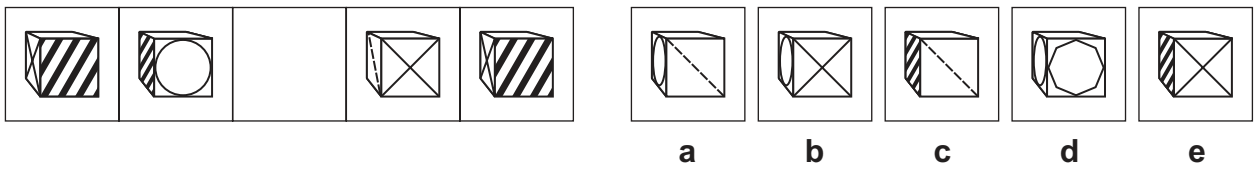

**2**




**3**

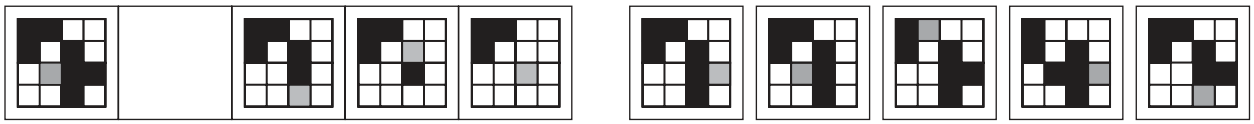



**4**



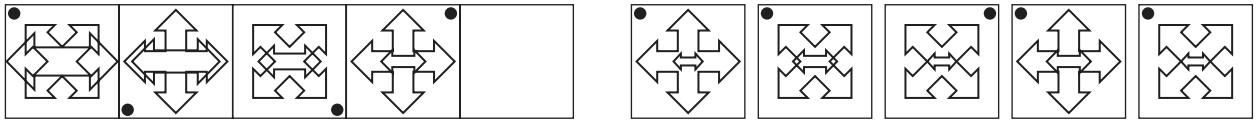

**Carry on to the next question →→**

**5**



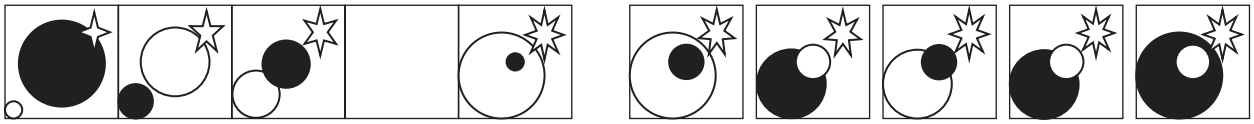
a b c d e

**6**



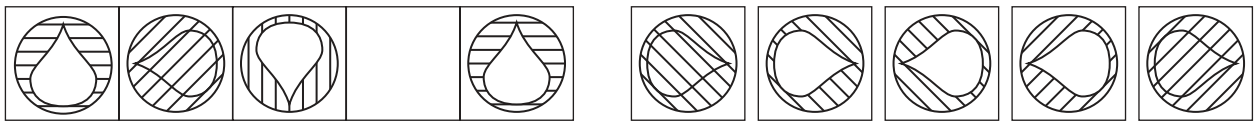
a b c d e

**7**



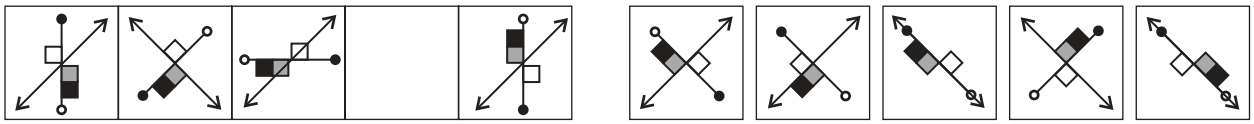
a b c d e

**8**



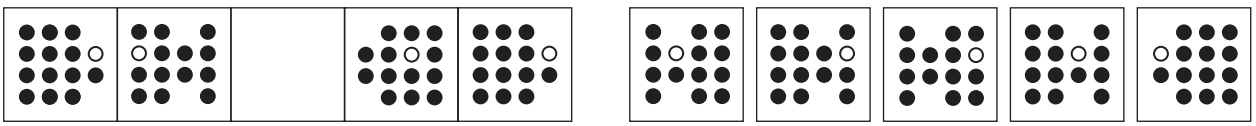
a b c d e

**9**



a b c d e

**10**



a b c d e

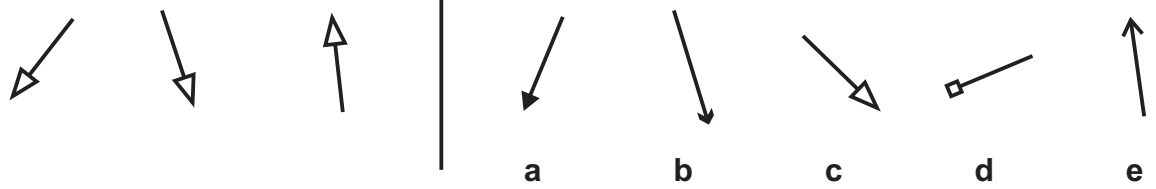
/ 10

**Carry on to the next question → →**

## Section 3 — Find the Figure like the First Three

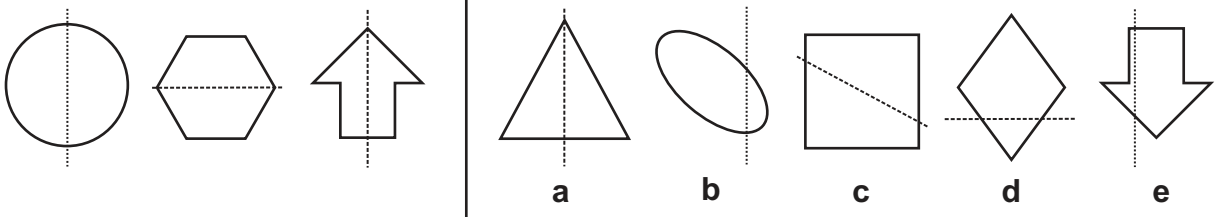
For each of the questions below there are three figures that are like each other in some way. Find which of the five figures on the right is most like the three figures on the left.

**Example:**

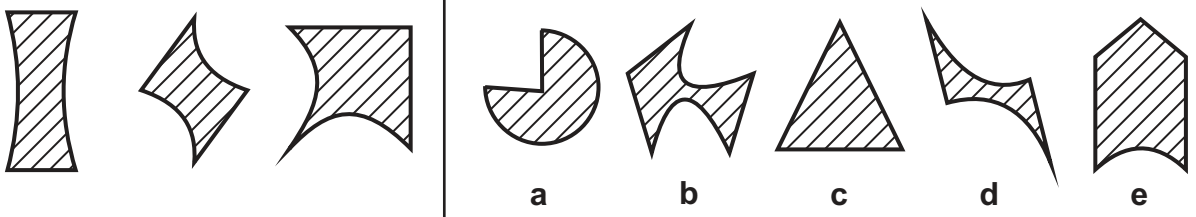



**Answer: c**

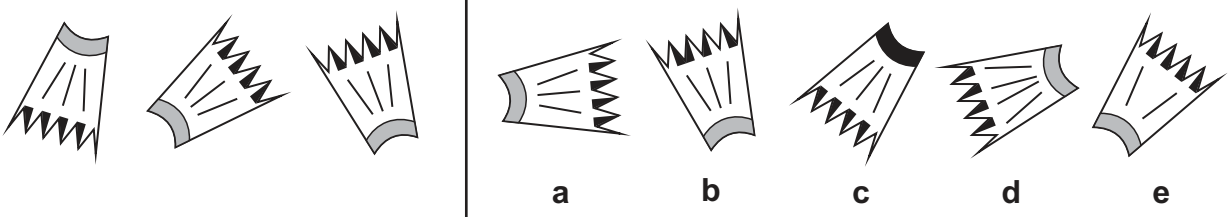
**1**



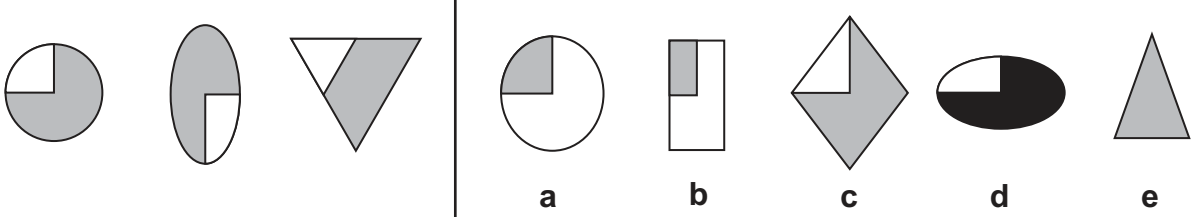

**2**




**3**

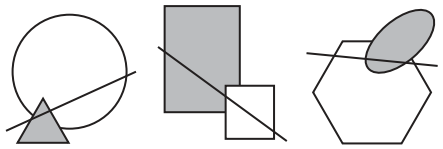



**4**

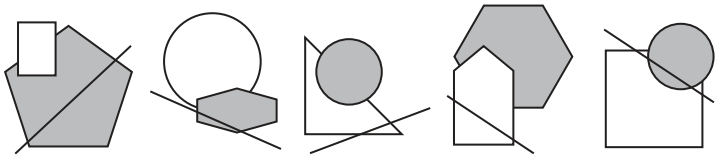



**Carry on to the next question →→**

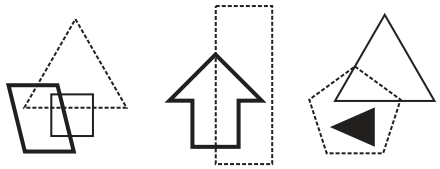
**5**



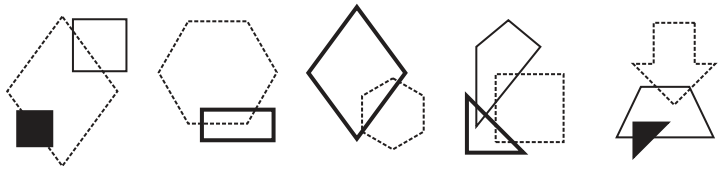
a b c d e



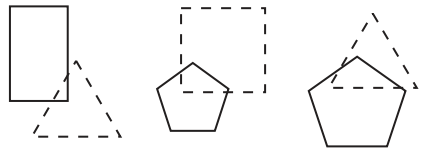
**6**



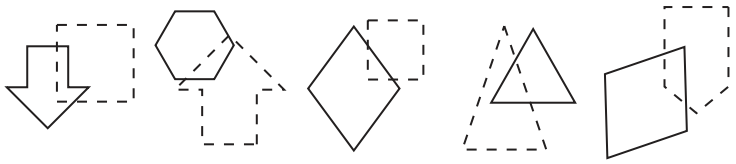
a b c d e



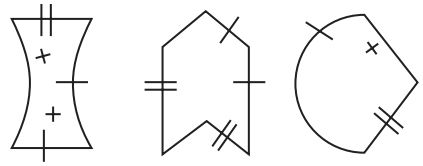
**7**



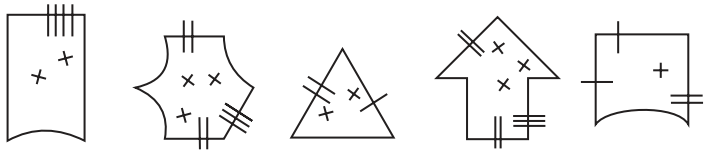
a b c d e



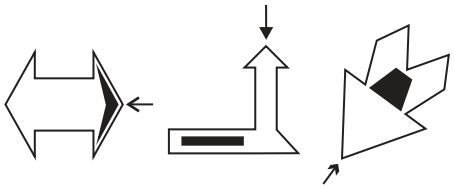
**8**



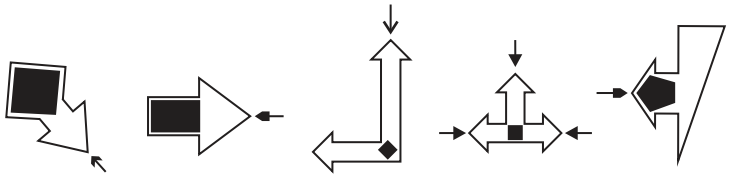
a b c d e



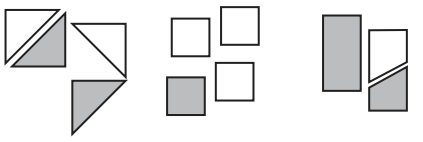
**9**



a b c d e



**10**



a b c d e

/ 10

**Carry on to the next question → →**

## Section 4 — Odd One Out

Each of the questions below has five figures.
Find which figure in each row is most unlike the others.

**Example:**

a b c d e

**Answer: b**

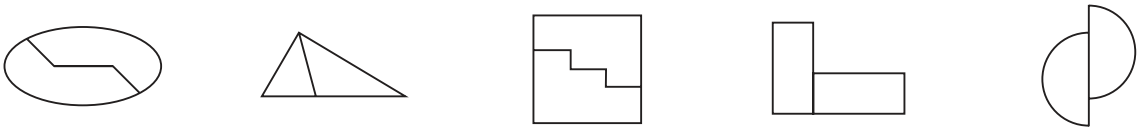
**1**

a b c d e

**2**

a b c d e

**3**



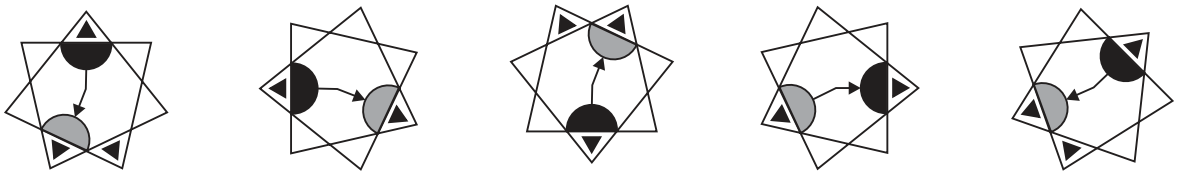
a b c d e

**4**

a b c d e

**Carry on to the next question →→**

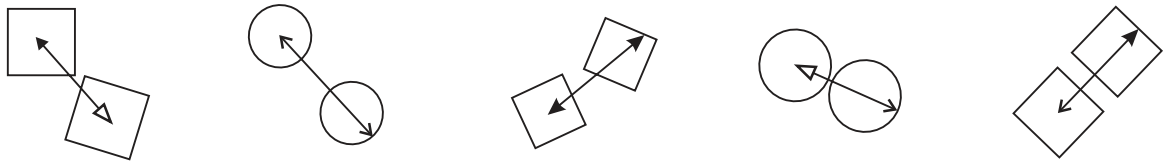
**5**



a b c d e

---

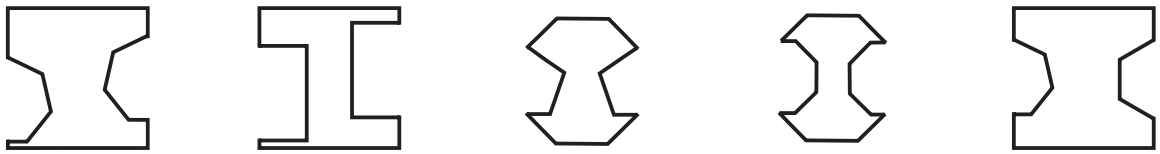
**6**



a b c d e

---

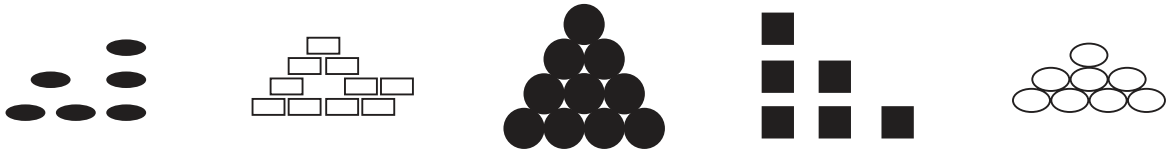
**7**



a b c d e

---

**8**



a b c d e

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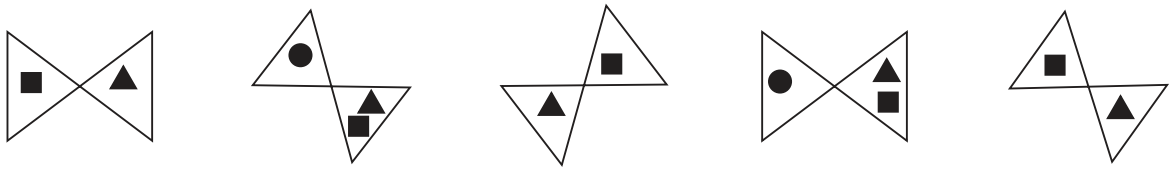
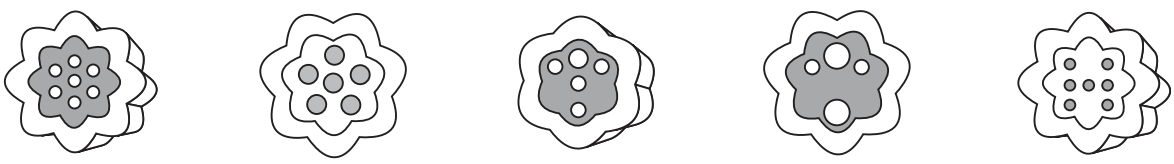
**9**



a b c d e

---

**10**



a b c d e

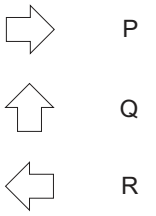
/ 10

**Carry on to the next question → →**

# Section 5 — Vertical Code

Each question has some shapes on the left with code letters that describe them. You need to work out what the code letters mean. There is then a shape on its own next to a choice of five codes. Work out which code describes this shape.

**Example:**



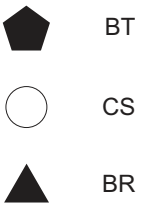

P Q T S R

**a** **b** **c** **d** **e**

**Answer: a**

The arrow pointing right has the letter code P, the arrow pointing left has the letter code R, and the arrow pointing up has the letter code Q. The new shape is an arrow pointing right, so the code must be P and the answer is a.

**Example:**




BC CR CT BS BR

**a** **b** **c** **d** **e**

**Answer: d**

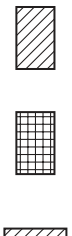
Both black shapes have the letter code B, and the white shape has a C, so the first letter is for shading. The second letter code must be the code for shape. T stands for a pentagon, the letter S for a circle and the letter R for a triangle. The new shape must have a B because it is black, and an S because it is a circle. The code must be BS and the answer is d.

**1**


SX SR PY PX RY

**a** **b** **c** **d** **e**

**2**




KP LP KR PR LR

**a** **b** **c** **d** **e**

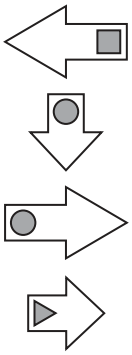
**3**


XY AX BY BX AY

**a** **b** **c** **d** **e**

**Carry on to the next question →→**

**4**

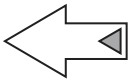


SZ

RX

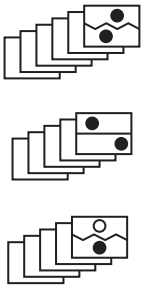
RY

PY



SX **a** PX **b** RZ **c** PZ **d** SY **e**

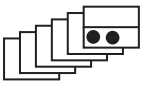
**5**



FNX

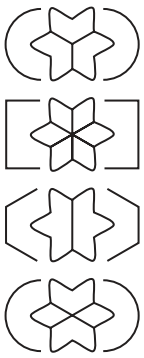
GNY

FMY



FNY **a** GNY **b** FNX **c** FMY **d** GNX **e**

**6**

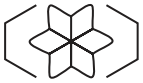


GL

JP

KX

HL



KL **a** JX **b** KP **c** JL **d** HP **e**

**7**

DU

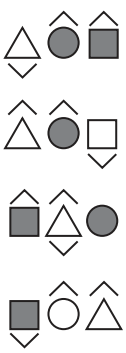
BU

AW

CV

AU **a** BU **b** BV **c** CU **d** DV **e**

**8**



AS

BP

AR

AS

BR **a** BS **b** AR **c** BP **d** AP **e**

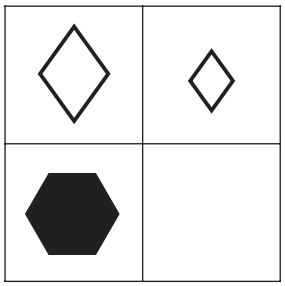
/ 8

**Carry on to the next question →→**

# Section 6 — Complete the Grid

On the left of each question below is a big square with one small empty square.
Find which of the five squares on the right should replace the empty square.

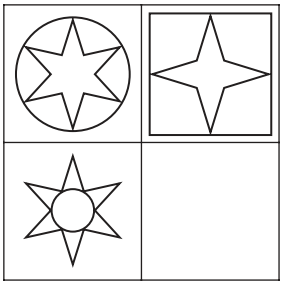
**Example:**



a b c d e

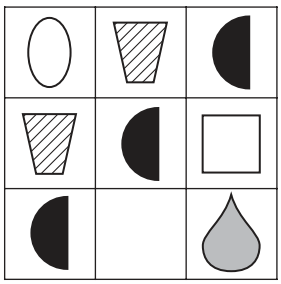
**Answer: c**

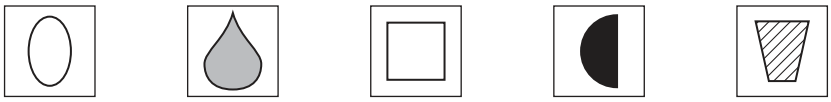
**1**



a b c d e

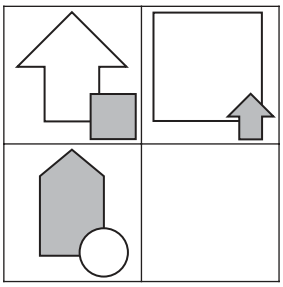
**2**

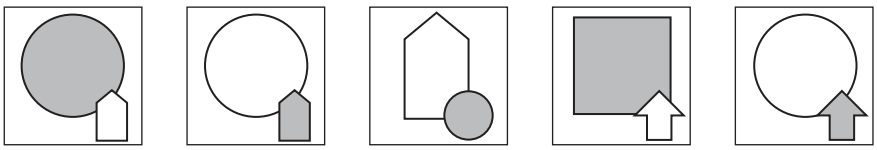




a b c d e

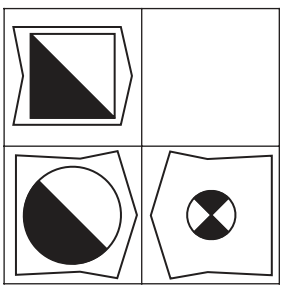
**3**

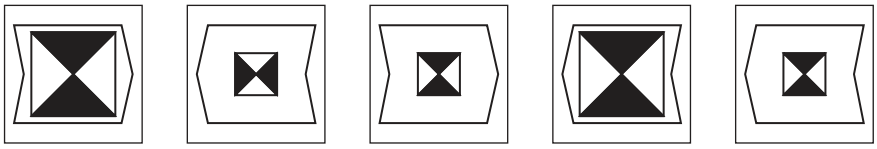




a b c d e

**4**

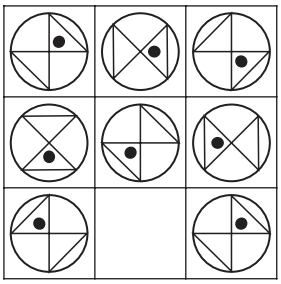




a b c d e

**Carry on to the next question →→**

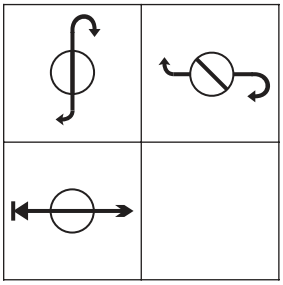
**5**

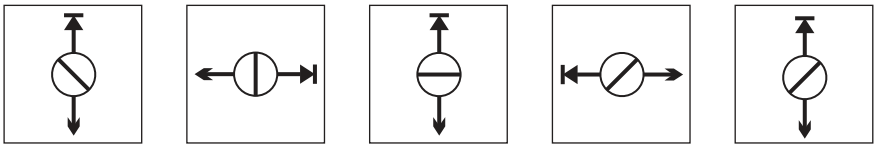


a b c d e

---

**6**

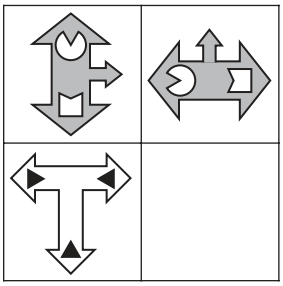


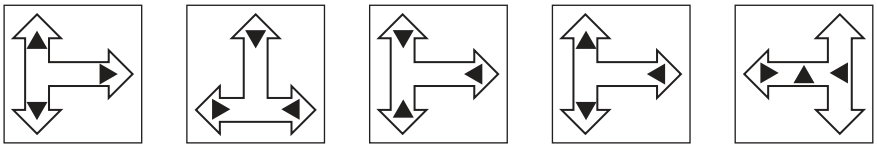


a b c d e

---

**7**

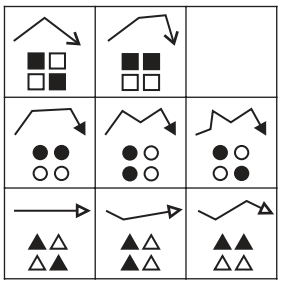




a b c d e

---

**8**

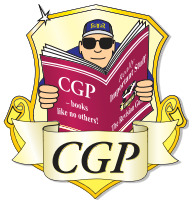


a b c d e

/ 8

Total / 56

**End of Test**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# Paper Notes: 11+ Non-Verbal Reasoning Question Booklet

Compiled by SATs-Papers.co.uk to help you get the most from this paper.

## Overview

This is a **CGP 11+ Non-Verbal Reasoning sample test** designed for **GL Assessment** style exams. It provides a timed, full-length practice paper that mirrors the format and difficulty of the real GL 11+ NVR test. The paper contains **56 questions** to be answered in **30 minutes**, testing a range of visual and logical reasoning skills through multiple-choice questions.

The test is divided into **six distinct sections**, each targeting a different aspect of non-verbal reasoning. Students must identify patterns, complete visual sequences, spot similarities and differences, decode abstract systems, and manipulate spatial information. All questions are presented in a clean, consistent format with five answer options labelled a to e.

This paper is ideal for pupils in Year 6 preparing for selective grammar school entrance exams or independent school entry. It offers an authentic simulation of exam conditions and helps students become familiar with the strict time limits and variety of question types they will encounter. The paper can be used for timed practice, diagnostic assessment, or targeted revision of weaker areas.

## How this paper is organised

The test comprises **six sections** with **10 questions in sections 1 to 4** and **8 questions in sections 5 and 6**, totalling 56 questions. Each section is allocated a separate score box at the end, allowing students and tutors to track performance by question type. The paper is designed to be completed in **30 minutes**, requiring quick and accurate decision-making under pressure.

Section 1 tests pattern matching between pairs of figures, Section 2 focuses on completing visual sequences, and Section 3 extends pattern recognition to three reference figures. Section 4 introduces odd-one-out challenges, Section 5 presents vertical code problems where students decode letter-based systems, and Section 6 requires completion of abstract grids with missing elements.

The layout is clear and uncluttered, with each question occupying its own space on the page. Worked examples precede each section, explaining the task format. Students can mark answers either on a separate multiple-choice answer sheet or by circling the correct letter directly in the booklet, offering flexibility for different practice scenarios.

## Topics covered

- Find the Figure Like the First Two – identifying shared properties (shading, orientation, number of sides) between pairs of shapes and selecting a third that matches
- Complete the Series – recognising progressive changes in sequences of five figures, often involving rotation, shading shifts, or element addition and removal
- Find the Figure Like the First Three – analysing three reference figures to determine a common rule (such as symmetry, line type, or proportion) and applying it to select a fourth
- Odd One Out – spotting the figure that violates a shared property among five options, testing attention to subtle differences in shape, orientation, or internal features
- Vertical Code – decoding two-letter or three-letter codes that describe shape, shading, size, pattern, or other attributes, then applying the decoded rules to identify the correct code for a new figure
- Complete the Grid – analysing 2×2 or 3×3 grids to identify positional, rotational, or transformational rules, then selecting the missing cell that maintains the pattern across rows, columns, or diagonals

## How to use this paper for revision

- Practise each section type separately first, focusing on one pattern recognition skill at a time until you can spot the rule quickly and confidently.
- Time yourself strictly on full practice papers. Aim to spend no more than 30 seconds per question on average, moving on if you get stuck.
- For code questions, write down what each letter represents as you work it out. This prevents confusion and speeds up the process when you decode the target shape.
- Look for the most obvious differences first (shading, number of elements, orientation). Often the key rule is simpler than it appears, and you can eliminate wrong answers rapidly.
- When completing grids, check both rows and columns. The pattern may work horizontally, vertically, or diagonally, so test all directions systematically.
- Review your mistakes carefully. Note the rule you missed and redo similar questions to embed the pattern recognition skill. Many NVR rules recur across papers.
- Use scrap paper to sketch rotations or transformations if you struggle to visualise them mentally. A quick diagram can clarify a sequence or code.

## Common mistakes to avoid

- Rushing through pattern questions without checking all five answer options. The correct answer may resemble a distractor at first glance, so always verify your choice against the rule.
- Focusing on one attribute (such as shape) while ignoring another (such as shading or size). NVR questions often test multiple properties simultaneously, and missing one leads to incorrect answers.
- In code questions, assigning the wrong letter to an attribute. Double-check your decoding by testing it on all the given examples before selecting your answer.
- Assuming a sequence continues in a simple linear way. Many GL sequences involve alternating patterns, rotations in different directions, or elements that appear and disappear in cycles.
- Spending too long on difficult questions. If you cannot see the rule within 30 to 40 seconds, guess intelligently and move on. Returning later with fresh eyes often helps.
- In grid questions, only checking one direction. A rule that seems to work for rows may break down when you check columns, so always verify in multiple directions before committing.

## Exam technique

Start with **Section 1** and work through the paper in order, as the sections increase slightly in complexity. Sections 1 to 4 are pattern-based and relatively quick; Sections 5 and 6 demand more decoding and spatial manipulation, so allocate slightly more time per question there. Aim to complete the first four sections in roughly 18 to 20 minutes, leaving 10 to 12 minutes for Sections 5 and 6.

Read the worked examples carefully at the start of each section, even if you are familiar with the format. They clarify exactly what the question is asking and can prevent misinterpretation. If you find a question baffling, eliminate obviously wrong answers first, make an educated guess, and move on. You cannot afford to lose time on a single tough question.

After completing the paper, mark your answers against a mark scheme if available, then review every error. Identify whether you made a careless mistake (misread the question, ticked the wrong box) or failed to spot the rule. Rework the question until you understand the pattern. Regular timed practice with a variety of CGP and GL-style papers will build both speed and accuracy, which are equally important for success in the real test.

## What to revise alongside this paper

Students should also practise **verbal reasoning codes** and number series, as these develop similar pattern-spotting and logical deduction skills. Many 11+ exams combine verbal and non-verbal reasoning papers, so fluency in both areas is essential. Reviewing **shape properties** (names of polygons, types of symmetry, angle relationships) will help with quick identification of figures and speed up decision-making.

For pupils aiming at top grammar schools, try **harder NVR papers from Bond or CGP's 10-Minute Tests** to build speed under pressure. Work on mental rotation exercises and tangram puzzles outside formal test practice to strengthen spatial visualisation. These skills transfer directly to grid and sequence questions.

Finally, familiarise yourself with **GL's official familiarisation booklets** if your target school uses GL Assessment papers. While this CGP paper is excellent general practice, schools may use slightly different formats or emphases, so exposure to the exact style you will face on the day is invaluable.

## Key terms

> **Pattern recognition**, **Visual sequence**, **Odd one out**, **Vertical code**, **Shading**, **Rotation**, **Reflection**, **Symmetry**, **Transformation**, **Grid completion**, **Spatial reasoning**, **Attribute decoding**, **Distractor**, **Alternating pattern**, **Multiple-choice**

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# Sample 11+ Assessment Test for GL Assessment — Non-Verbal Reasoning

CGP

**Pupil's name:**

**Test date:**

**School name:**

**Please mark like this:** —

**Sample Test**

| Pupil Number | School Number |
|---|---|
| [0] [0] [0] [0] [0] [0] | [0] [0] [0] [0] [0] [0] [0] |
| [1] [1] [1] [1] [1] [1] | [1] [1] [1] [1] [1] [1] [1] |
| [2] [2] [2] [2] [2] [2] | [2] [2] [2] [2] [2] [2] [2] |
| [3] [3] [3] [3] [3] [3] | [3] [3] [3] [3] [3] [3] [3] |
| [4] [4] [4] [4] [4] [4] | [4] [4] [4] [4] [4] [4] [4] |
| [5] [5] [5] [5] [5] [5] | [5] [6] [6] [6] [6] [6] [6] |
| [6] [6] [6] [6] [6] [6] | [7] [7] [7] [7] [7] [7] [7] |
| [7] [7] [7] [7] [7] [7] | [8] [8] [8] [8] [8] [8] [8] |
| [8] [8] [8] [8] [8] [8] | [9] [9] [9] [9] [9] [9] [9] |
| [9] [9] [9] [9] [9] [9] | |

**Date of Birth**

| Day | Month | Year |
|---|---|---|
| [0] [0] | January | 2005 |
| [1] [1] | February | 2006 |
| [2] [2] | March | 2007 |
| [3] [3] | April | 2008 |
| [4] | May | 2009 |
| [5] | June | 2010 |
| [6] | July | 2011 |
| [7] | August | 2012 |
| [8] | September | 2013 |
| [9] | October | 2014 |
| | November | 2015 |
| | December | 2016 |

## Section 1

EXAMPLE
a
b
c —
d
e

1 a b c d e
2 a b c d e
3 a b c d e
4 a b c d e
5 a b c d e
6 a b c d e
7 a b c d e
8 a b c d e
9 a b c d e
10 a b c d e

## Section 2

EXAMPLE
a —
b
c
d
e

1 a b c d e
2 a b c d e
3 a b c d e
4 a b c d e
5 a b c d e
6 a b c d e
7 a b c d e
8 a b c d e
9 a b c d e
10 a b c d e



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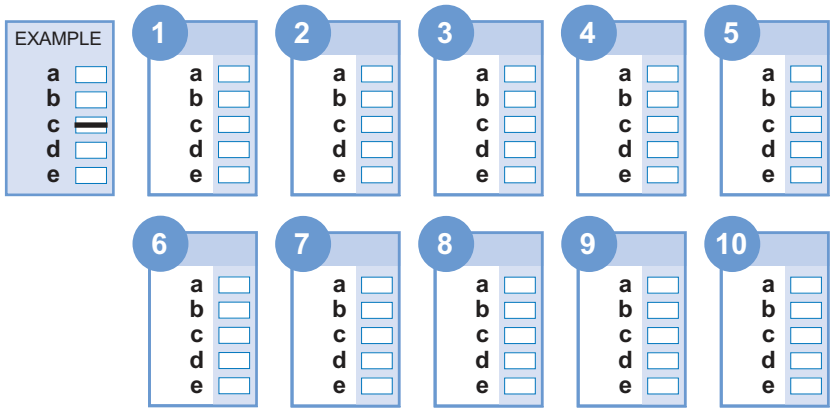
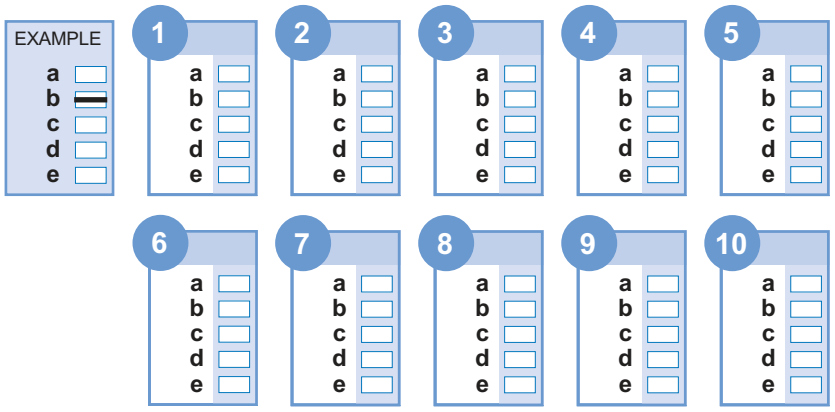
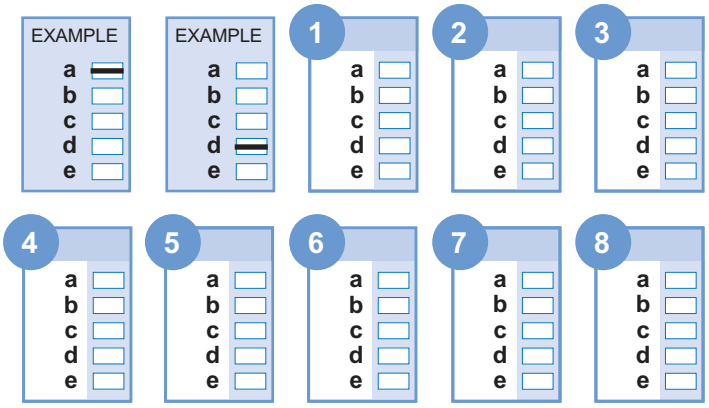
## Section 3



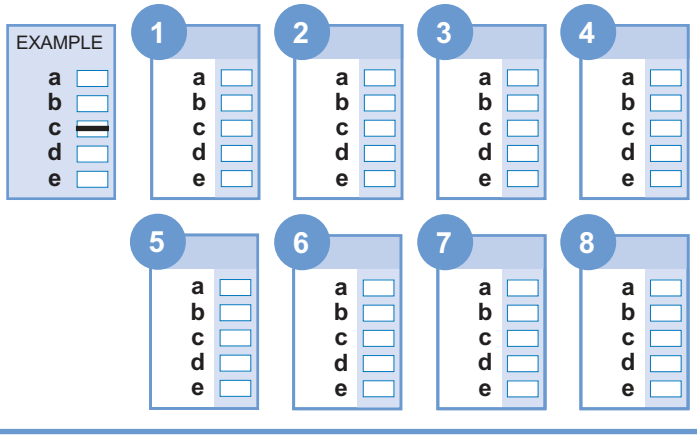

## Section 4




## Section 5




## Section 6



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# Paper Notes: 11+ Non-Verbal Reasoning Answer Sheet

Compiled by SATs-Papers.co.uk to help you get the most from this paper.

## Overview

This is an **answer sheet** designed for use with **CGP**'s sample **11+ Non-Verbal Reasoning** test prepared for **GL Assessment** style exams. It provides a structured bubble-sheet layout for recording multiple-choice answers across **six sections** covering visual and spatial reasoning tasks. The sheet includes fields for pupil details, school information, test date, and date of birth, along with numbered pupil and school identification grids.

The answer sheet is formatted to match the structure of the corresponding question booklet, with **56 questions in total** distributed unevenly across the sections. Each question offers **five answer options** (a through e), and pupils mark their chosen response by filling in the appropriate bubble. Example questions are included at the start of most sections to help familiarise students with the marking convention.

This document is particularly useful for students preparing for **11+ entrance exams** that use GL Assessment materials, as it replicates the format they will encounter on test day. Parents and tutors can use it alongside the question paper to conduct timed practice sessions and then mark responses accurately, building familiarity with the bubble-sheet method that many 11+ exams employ.

## How this paper is organised

The answer sheet is divided into **six sections**, each corresponding to a section in the accompanying question booklet. Section 1 contains **10 questions** (numbered 1 to 10) plus an example, Section 2 also has **10 questions** plus an example, and Section 3 follows the same pattern with **10 questions**. Section 4 mirrors this structure with another **10 questions** and example.

Section 5 differs slightly by including **two example questions** before presenting **8 numbered questions** (1 to 8). Section 6 contains **8 questions** (1 to 8) plus one example. Each question row displays five lettered bubbles (a, b, c, d, e) for the student to mark. The layout is clean and uncluttered, allowing clear marking of responses.

At the top of the sheet are fields for the pupil's name, school name, and test date, alongside a date of birth grid and numbered identification grids for pupil and school numbers. The design follows standard optical mark recognition conventions, making it suitable for manual or automated marking.

## Topics covered

- Pattern recognition involving sequences of shapes and identifying the missing or next element
- Shape manipulation tasks requiring mental rotation, reflection, or transformation of figures
- Spatial reasoning problems that test understanding of three-dimensional objects from two-dimensional representations
- Visual logic puzzles involving analogies, such as 'A is to B as C is to ...'
- Code-breaking exercises where symbols or shapes represent numerical or logical relationships
- Odd-one-out questions requiring identification of the shape that does not share a common property
- Series completion tasks where students must recognise and continue visual sequences
- Grid-based reasoning involving navigation, position, and orientation of shapes within a matrix

## How to use this paper for revision

- Practise marking answers quickly and accurately on bubble sheets, as rubbing out and re-marking can waste valuable time during the actual test.
- Work through example questions carefully to understand the conventions of each section before attempting the numbered questions.
- Time yourself when completing practice papers to build familiarity with the pace required, aiming to spend no more than 30 to 45 seconds per question.
- Review any incorrectly marked questions by revisiting the corresponding question in the booklet to understand why the correct answer fits the pattern.
- Use a soft pencil (HB or 2B) and fill bubbles completely without going outside the lines, as incomplete or unclear marks may not register if scanned.
- Check that your question number on the answer sheet matches the question number in the booklet before marking each response, especially after pausing or returning to skipped questions.

## Common mistakes to avoid

- Marking the wrong bubble row by losing track of question numbers, particularly in sections with both example and numbered questions close together.
- Failing to fill bubbles completely or neatly, which can lead to marks not being recognised by automated scanners or causing confusion during manual marking.
- Spending too long deliberating over difficult questions and running out of time to attempt easier questions later in the test.
- Misreading visual patterns due to rushing, especially in questions requiring careful observation of rotation, reflection, or subtle differences in shapes.
- Not using example questions to calibrate their approach, leading to misunderstanding the type of reasoning required in that section.

## Exam technique

When using this answer sheet during practice, treat it as you would in the real exam by filling in your personal details at the top before starting. Work through each section in order, beginning with the example question to confirm you understand the task type. Mark your chosen answer clearly and completely, ensuring the bubble is fully shaded.

Pace yourself by dividing the total time available by the number of questions, allowing a few minutes at the end for checking. If you become stuck on a question, mark your best guess and move on rather than leaving it blank, as there is typically no penalty for incorrect answers in GL Assessment tests. Use any remaining time to revisit questions you found challenging or to verify that all bubbles are marked correctly.

After completing the paper, use the corresponding mark scheme to check your answers and calculate your score. Pay particular attention to questions you got wrong, returning to the question booklet to analyse the correct pattern or logic you missed. This reflective practice is crucial for improving performance on future papers.

## What to revise alongside this paper

Students preparing for 11+ Non-Verbal Reasoning should also practise **other question types** found in GL Assessment papers, including hidden shapes, nets of cubes, and overlapping figures, as these appear frequently. Building skills in **mental rotation and visualisation** through puzzles like tangrams or Rubik's cubes can significantly improve performance on shape manipulation tasks.

Familiarise yourself with **timed test conditions** by completing full-length practice papers under exam-style pressure, as time management is often as important as reasoning ability. Many students also benefit from working on **Verbal Reasoning**

papers from the same publisher, as the multiple-choice format and pacing strategies transfer directly.

Once confident with this level, progress to more challenging materials such as **Bond 11+ assessment papers** or additional CGP resources that include harder questions and mixed question types. Reviewing **mathematical shape and symmetry** concepts from the Key Stage 2 curriculum can also reinforce the geometric understanding needed for several Non-Verbal Reasoning question types.

## Key terms

> **Pattern recognition**, **Spatial reasoning**, **Shape manipulation**, **Visual logic**, **Rotation**, **Reflection**, **Sequence**, **Analogy**, **Odd one out**, **Code-breaking**, **Matrix reasoning**, **Series completion**, **Multiple-choice**, **Bubble sheet**, **GL Assessment**

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# Answers to Sample 11+ Assessment Test for GL Assessment — Non-Verbal Reasoning

## Section 1 — Find the Figure Like the First Two

**1) B**
All figures must be triangles with a flat side at the bottom.

**2) C**
All figures must have the same number of dots as inside lines.

**3) D**
All figures must have a black shape at the front.

**4) B**
All figures must have two shapes and an arrow pointing up.

**5) B**
All figures must have a dot directly next to the middle of the flat side of the large white shape.

**6) B**
All figures must have a large shape with the same small shape overlapping it on the left hand side.

**7) E**
All figures must have a large shape with five sides. There must be the same number of raindrops as the number of shapes with dashed outlines inside the five-sided shape.

**8) D**
All figures must have the same number of lines at the bottom as the number of dots at the top. There must be black and white dots at the top. All the vase shapes must be shaded black up to the same level.

**9) B**
All figures must have one less inner line than the number of sides of the shape.

**10) E**
In all figures, the shaded parts of the two inner shapes must equal one whole inner shape.

## Section 2 — Complete the Series

**1) E**
The circle rotates 90 degrees clockwise in each series square.

**2) C**
The whole series square reflects across each time.

**3) C**
All of the circles move up one row in each series square. When they reach the top, they go back to the bottom in the next series square.

**4) A**
The cube turns one face in each series square. The front cube face becomes the left hand cube face, and a new cube face appears at the front.

**5) A**
In each series square, the grey square in the previous series square becomes white, and one of the black squares becomes grey.

**6) E**
The four-headed arrow shape rotates 45 degrees in each series square. The black dot moves anticlockwise round the corners of the series square. The two-headed arrow shape gets smaller in each series square.

**7) B**
The circle in the bottom left hand corner gets bigger, and the centre circle gets smaller in each series square. The two circles alternate colours between black and white. The star gets an extra point in each series square.

**8) A**

**9) C**
The two-headed arrow rotates 90 degrees in each series square. The line with the squares and the circles rotates 45 degrees clockwise each time. The circles swap colours in each series square.

**10) A**
The column with only two dots moves one place left in each series square. The white dot moves one place to the right.

## Section 3 — Find the Figure Like the First Three

**1) A**
All figures must be shapes with a line going through them which shows a line of symmetry.

**2) D**
All figures must be made of two straight lines and two curved lines.

**3) A**
All figures must be identical apart from rotation.

**4) C**
All figures must be grey with one white quarter.

**5) E**
All figures must have a line which crosses both shapes.

**6) D**
In all figures, the number of sides of the overlapping shapes must add up to eleven (ignoring the inner shapes created by the overlaps).

**7) A**
In all figures, the shape with the smallest number of sides must have a dashed outline.

**8) E**
All figures must have the same number of small lines crossing the outline of the shape as the number of sides of the shape (including curved sides). There must be the same number of crosses as the number of curved lines.

**9) A**
All figures must have a large arrow shape with ten sides, with a four-sided black shape inside it.

**10) E**
In all figures, it must be possible to arrange the shapes into a square. There must be at least one grey and one white shape.

## Section 4 — Odd One Out

**1) D**
All other figures have a black dot.

**2) E**
All other figures are hatched in the same direction.

**3) B**
All other figures are made of two identical shapes.

**4) B**
In all other figures, the two shapes are overlapping.

**5) D**
All other figures have an arrow pointing towards the grey semicircle.

**6) A**
All other figures have an arrowhead which is touching the outline of the right hand shape.

**7) E**
In all other figures, the two shapes cut out from the large shape are reflections of each other.

**8) E**
All other figures have one less shape in each row than in the row below.

**9) C**

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and alternates between being white and transparent.

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**10) D**

All other figures have one less dot than the number of curved sides of the shape immediately around the dots.

## Section 5 — Vertical Code

**1) C (PY)**

P = solid outline, R = long-dashed outline,
S = short-dashed outline.
X = ellipse, Y = circle.

**2) E (LR)**

K = vertical rectangle, L = horizontal rectangle.
P = hatched rectangle, R = cross-hatched rectangle.

**3) E (AY)**

A = outside shape has the most sides,
B = inner shape has the most sides.
X = black inner shape, Y = white inner shape.

**4) D (PZ)**

P = inner triangle, R = inner circle , S = inner square.
X = arrow pointing down, Y = arrow pointing right,
Z = arrow pointing left.

**5) E (GNX)**

F = jagged inner line, G = straight inner line.
M = one black dot, N = two black dots.
X = six big rectangles, Y = five big rectangles.

**6) B (JX)**

G = central shape divided into three, H = divided into four,
J = divided into six, K = divided into two.
L = curved brackets, P = square brackets,
X = hexagonal brackets.

**7) C (BV)**

A, B, C and D = different rotations of the cross in the circle.
U = two black circles, V = one black circle,
W = three black circles.

**8) B (BS)**

A = grey square, B = white square.
P = bottom v-shape is on the right,
R = in the middle, S = on the left.

## Section 6 — Complete the Grid

**1) A**

Working from top to bottom, the outer shape shrinks to fit inside the star.

**2) C**

Working from top to bottom, each shape moves one grid square left. The shape in the left hand grid square disappears, and a new shape appears in the right hand grid square.

**3) A**

Working from left to right, the two shapes swap places, sizes and shadings.

**4) E**

Working from left to right, the outer shape reflects across. The whole inner shape shrinks, and the shaded half splits into quarters. The shaded quarters move to the top and bottom of the inner shape.

**5) C**

Working from left to right, the contents of the grid square rotate 45 degrees clockwise.

**6) E**

Working from left to right, the line in the circle rotates 45 degrees anticlockwise. The rest of the arrow rotates 90 degrees clockwise.

**7) C**

Working from left to right, the grid square rotates 90 degrees anticlockwise.

**8) E**

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white shapes each only appears once in each row.

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# Answer-Key Notes: 11+ Non-Verbal Reasoning Answers

*Compiled by SATs-Papers.co.uk to help you mark this paper and learn from each answer.*

## How to use this answer key

This answer key lists the correct answer for each question, followed by a one-sentence explanation of the rule or pattern that makes that answer correct. Work through each section systematically, marking your child's work against the given answers. If an answer is wrong, read the explanation carefully to understand the logic behind the correct choice.

Distinguish between careless errors (where your child understood the pattern but rushed or misread the question) and genuine gaps in spatial reasoning. If several mistakes cluster in one section, that question type needs targeted practice. If errors are scattered, the issue may be concentration or timing rather than ability.

Use the worked examples below when the brief explanation in the mark scheme is not enough. They unpack the reasoning step by step, showing you how to talk through tricky questions with your child. Reserve these for questions where the pattern was genuinely hard to spot, not for every error.

## Score interpretation

This paper contains 56 marks across six question types: Find the Figure Like the First Two (10 marks), Complete the Series (10 marks), Find the Figure Like the First Three (10 marks), Odd One Out (10 marks), Vertical Code (8 marks), and Complete the Grid (8 marks). Each section tests a different aspect of non-verbal reasoning, so a strong overall score matters more than perfection in any one area.

A score above 45 (80%) suggests solid non-verbal reasoning skills and readiness for 11+ standard questions. Scores between 35 and 45 indicate competence with room to improve, especially in the trickier sections (Vertical Code and some Odd One Out questions). Below 35 signals that core pattern-recognition skills need systematic work, starting with the more straightforward question types (Find the Figure Like the First Two, Complete the Series) before tackling multi-step reasoning.

Look at the distribution of errors. If most mistakes are in Section 5 (Vertical Code) but the other sections are strong, your child may need practice decoding overlapping attributes rather than a general intervention. Conversely, errors spread evenly across all six sections suggest fatigue, rushing, or a need to build confidence with timed conditions.

## Worked examples

### Section 1 – Find the Figure Like the First Two, Q1–10

Each question establishes a rule from two example figures, then asks which of five options also obeys that rule. Marks are lost when students spot one feature (e.g. 'all triangles') but miss a second condition (e.g. 'with a flat side at the bottom'). **Always check every visible attribute** – shape, orientation, shading, position of dots or lines, and number of elements – before choosing an answer.

> **Q5** : B
>
> The two example figures both have a large white shape with a dot placed directly next to the middle of one flat edge. Option B is the only answer that replicates this precise positioning. Options that show a dot near a corner or inside the shape do not match the rule.

> **Q7** : E
>
> Both examples are five-sided shapes containing smaller shapes, some with dashed outlines. The number of raindrops equals the number of dashed shapes inside. Option E has a pentagon with two dashed shapes inside and two raindrops, matching the rule. Other options break the count or lack the five-sided outer shape.

> **Q10** : E
>
> The two examples each contain two inner shapes whose shaded portions, when added together, equal one whole inner shape. In option E, the shaded parts of the two inner shapes combine to fill exactly one complete shape. Other options either under-fill or over-fill that total.

### Section 2 – Complete the Series, Q1–10

A sequence of four figures establishes a pattern; you must identify which fifth figure continues it. Students often spot one transformation (e.g. rotation) but miss a second (e.g. alternating shading). **Track every element independently** – rotation, reflection, movement, size change, colour swap – and verify that your chosen answer applies all changes simultaneously.

**Q6** : E

Three transformations occur in parallel: the four-headed arrow rotates 45° per step, the black dot moves anticlockwise around the corners, and the two-headed arrow shrinks each time. Option E is the only answer that applies all three changes correctly to the fourth square.

**Q9** : C

The two-headed arrow rotates 90° each step. The line with squares and circles rotates 45° clockwise each step. The circles swap colours (black to white, white to black) each step. Option C is the only choice that continues all three patterns from the fourth square.

### Section 3 – Find the Figure Like the First Three, Q1–10

Three example figures share a common rule; you must find which of five options also obeys it. Because there are three examples instead of two, the rule is often more abstract or involves counting or symmetry. **Compare all three examples** to extract the rule, then test each option methodically rather than choosing the first plausible match.

**Q6** : D

In every example, the number of sides of the two overlapping shapes (ignoring any inner shapes created by the overlap) adds up to eleven. Option D shows a shape with seven sides overlapping a shape with four sides, totalling eleven. Other options sum to a different number.

**Q8** : E

Each figure has as many small lines crossing the outline as the shape has sides (including curved sides), and as many crosses as it has curved lines. Option E is a five-sided shape with five crossing lines and one curved side with one cross, matching both parts of the rule.

**Q10** : E

All three examples can be rearranged to form a square, and each contains at least one grey shape and one white shape. Option E's shapes fit together into a square and include both shadings. Other options either cannot form a square or lack mixed shadings.

### Section 4 – Odd One Out, Q1–10

Five figures are shown; four share a rule and one breaks it. This section rewards close observation of small details. Students lose marks by choosing a figure that *looks* different but still obeys the underlying rule. **Identify what the four similar figures have in common**, then confirm that your chosen odd one violates that exact property.

> **Q7** : `E`
>
> In options A, B, C and D, the two shapes cut out of the large shape are reflections of each other. In option E, the two cut-outs are not reflections; one is rotated rather than mirrored. E is the odd one out because it breaks the symmetry rule.

> **Q9** : `C`
>
> In A, B, D and E, a small triangle sits inside the right-hand side of the hourglass shape. In option C, the triangle is on the left-hand side instead. C is the odd one out because the triangle is in the wrong half.

### Section 5 – Vertical Code, Q1–8

Each question shows three or four coded figures, then asks you to decode a new figure using the same letter system. Codes have two or three letters, each representing one attribute (e.g. shape, shading, orientation). **Decode one letter position at a time** by comparing figures that differ in only that attribute, then combine the letters for the new figure. Do not guess the whole code at once.

> **Q5** : `E (GNX)`
>
> First letter: F = jagged inner line, G = straight inner line. Second letter: M = one black dot, N = two black dots. Third letter: X = six big rectangles, Y = five. The new figure has a straight line (G), two dots (N) and six rectangles (X), so the code is GNX.

> **Q6** : `B (JX)`
>
> First letter codes the number of divisions: G = three, H = four, J = six, K = two. Second letter codes the bracket type: L = curved, P = square, X = hexagonal. The new figure is divided into six sections (J) with hexagonal brackets (X), giving JX.

### Section 6 – Complete the Grid, Q1–8

A 2×2 grid has one empty square; you must choose which of five options completes the pattern. Patterns may run across rows, down columns, or diagonally. **Check both**

**directions** – left-to-right and top-to-bottom – to understand the rule, then apply it to find the missing square. Many errors come from spotting a pattern in one direction only.

> **Q4** : E
>
> Working left to right across each row, the outer shape reflects horizontally, the inner shape shrinks, and the shaded half splits into quarters that move to the top and bottom. Option E applies all three transformations to the bottom-left square, completing the bottom row.

> **Q8** : E
>
> Working left to right, the arrow line gains one extra corner in each square, and the three different black-and-white arrangements each appear exactly once per row. The missing square needs an arrow with four corners and the third shading arrangement (black square, white circle, black triangle). Only option E fits.

## Next steps

After marking, sit down with your child and revisit every mistake together. For each wrong answer, read the explanation in the mark scheme aloud, then ask your child to explain the rule back to you in their own words. If they cannot articulate it, use the worked example in this appendix to break the reasoning into smaller steps. **Understanding why an answer is wrong is more valuable than the mark itself.**

If your child scored below 70%, prioritise untimed practice on the weaker question types before attempting another full paper under timed conditions. If the score is above 80%, consider moving to harder mixed-format papers or official past papers from GL Assessment to maintain challenge. Keep a log of recurring error types (e.g. 'misses second condition in Find the Figure questions') and target those patterns in your next practice session.

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