

## 11+ PRACTICE PACK

# GL Assessment Test 1

## 11+ Non-Verbal Reasoning Complete Practice Pack

### CONTENTS

---

#### 01 Question Booklet

GL Assessment 11+ Non-Verbal Reasoning. Work through this paper first.

Includes Paper Notes: overview, topics, revision tips, common mistakes.

#### 02 Answer Sheet

GL Assessment 11+ Non-Verbal Reasoning. For writing your answers separately from the question paper.

#### 03 Answers

GL Assessment 11+ Non-Verbal Reasoning. Use to mark your work against the official answer key.

Includes Paper Notes: score interpretation, selected worked examples, next steps.

PRACTISE THE REAL THING


---

Download more free 11+ practice papers at [SATs-Papers.co.uk](https://www.sats-papers.co.uk)

# Non-Verbal Reasoning 1

Read the following with your child:

---

1. This is a multiple-choice paper in which you have to mark your answer to each question on the separate answer sheet. You should mark only one answer for each question.
  2. Draw a firm line clearly through the rectangle next to your answer like this . If you make a mistake, rub it out as completely as you can and put in your new answer.
  3. There are four sections in this paper. Each section starts with an explanation of what to do followed by a worked example with the answer already marked on the answer sheet. Each section also contains some practice questions. Solutions to the example and practice questions are provided.
  4. Be sure to keep your place in the correct section on the answer sheet. Mark your answer in the box that has the same number as the question in the booklet.
  5. You may find some of the questions difficult. If you cannot do a question, **do not waste time on it but go on to the next**. If you are not sure of an answer, choose the one you think is best.
  6. **Work as quickly and as carefully as you can.**
- 

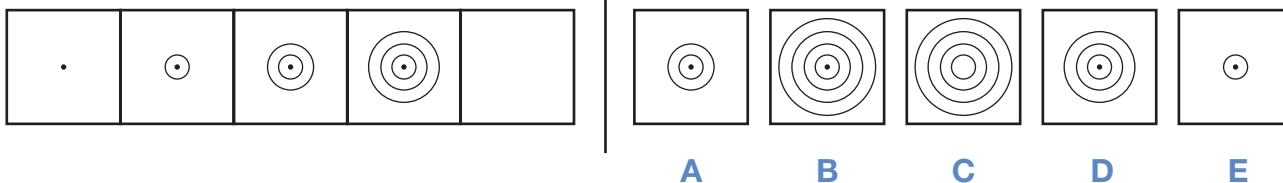
Familiarisation



# Section 1

To the left in the example below there are five squares arranged in order. One of these squares has been left empty. One of the five squares on the right should **take the place** of the empty square and its letter has been marked on your answer sheet.

## Example

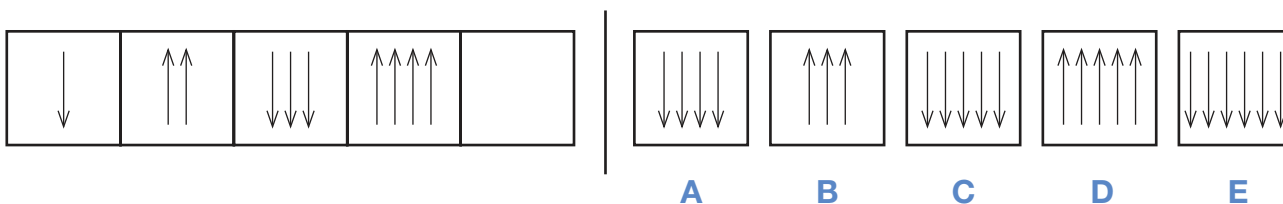


**Answer: B**

As you move through the series, the dot acquires an extra ring around it, increasing the overall size of the circle each time. The central dot is present in each cell.

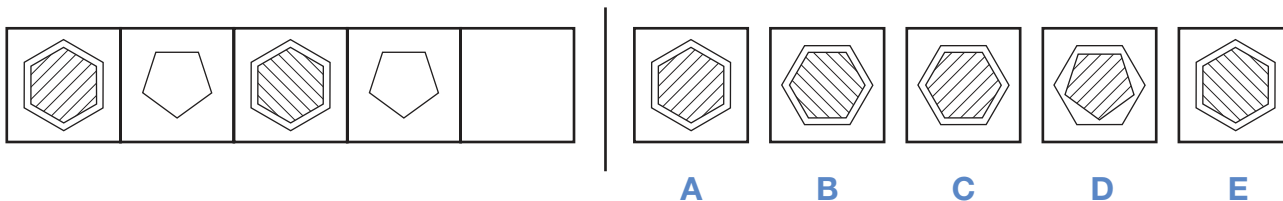
Now do the two practice questions below.

## P1



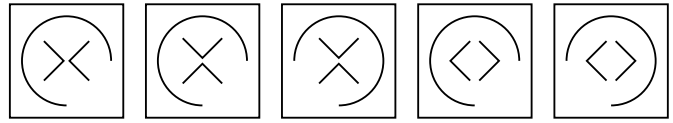
This series has two rules: firstly, an arrow is added each time and, secondly, the direction of the arrows alternates, pointing downwards then upwards etc. Therefore, the missing square should have five arrows pointing downwards, as in answer option **C**.

## P2



In this series, the image changes across every other square so the pattern for 1, 3 and 5 is independent from squares 2 and 4. We can see that the pattern for 2 and 4 remains the same: the five-sided shape doesn't change. The pattern for 1, 3 and 5 shows that the six-sided shape is always positioned the same way but the direction of the diagonal lines alternates. In square 5 they will be slanting right, as in answer option **A**.

1



A

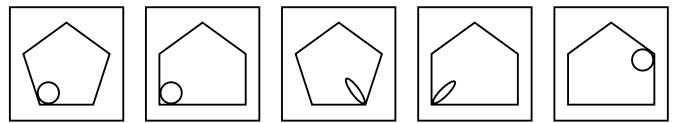
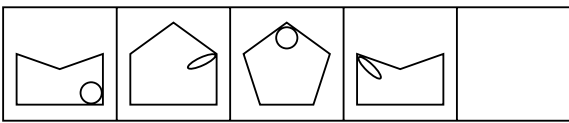
B

C

D

E

2



A

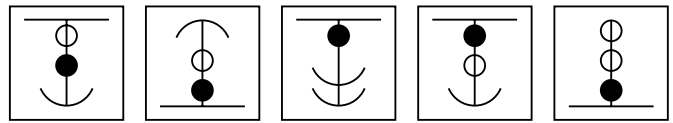
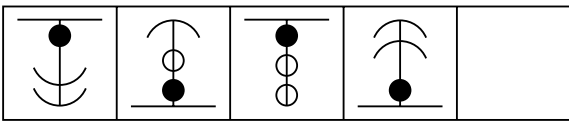
B

C

D

E

3



A

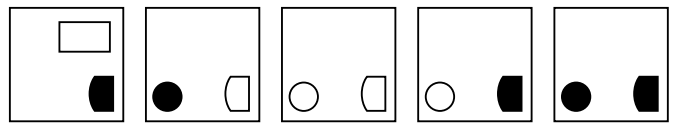
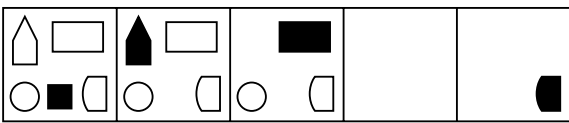
B

C

D

E

4



A

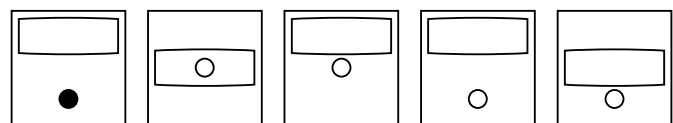
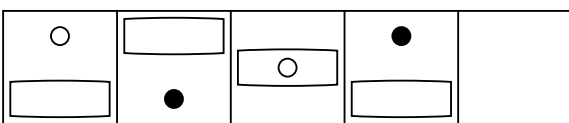
B

C

D

E

5



A

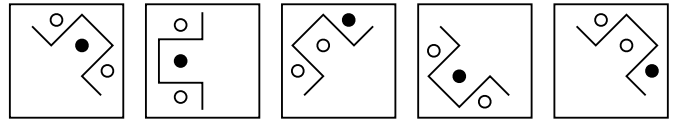
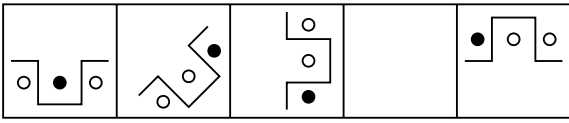
B

C

D

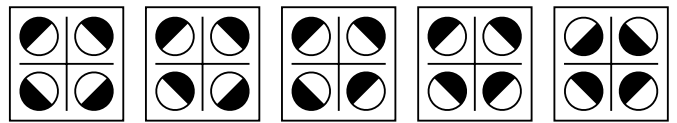
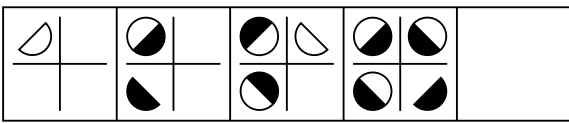
E

6



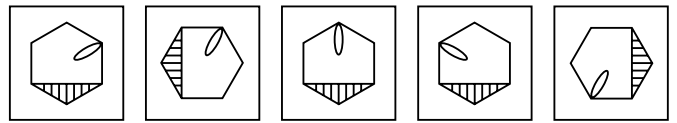
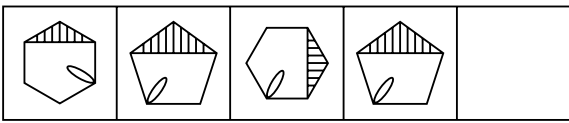
A B C D E

7



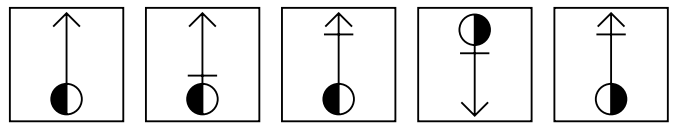
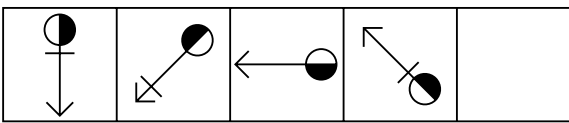
A B C D E

8



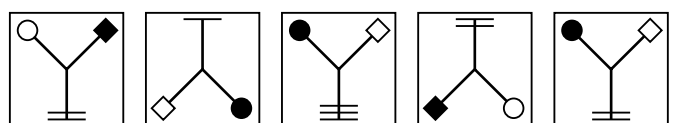
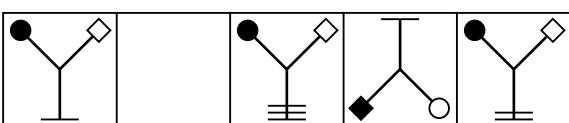
A B C D E

9



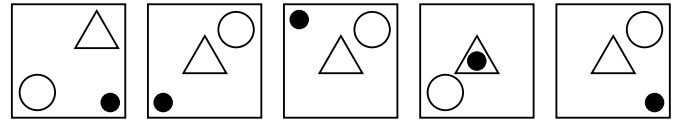
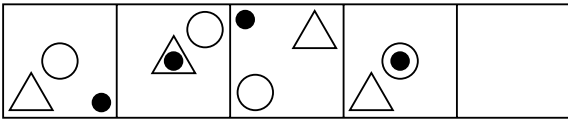
A B C D E

10



A B C D E

11



A

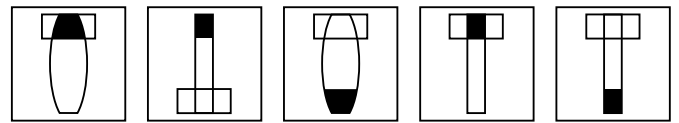
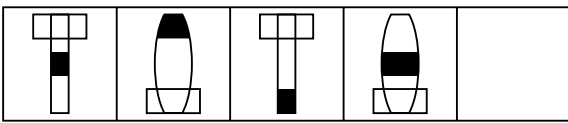
B

C

D

E

12



A

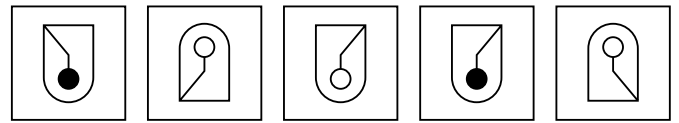
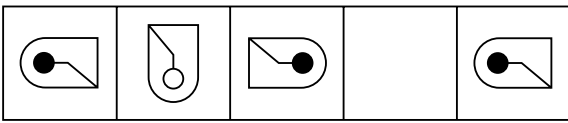
B

C

D

E

13



A

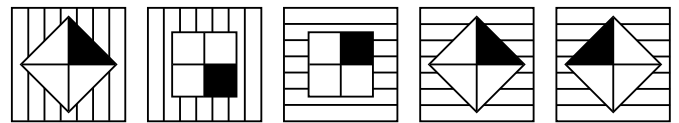
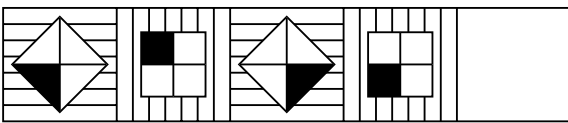
B

C

D

E

14



A

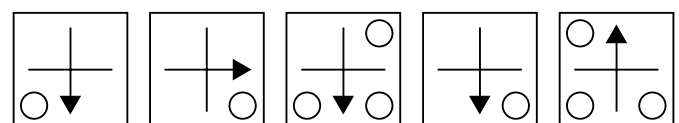
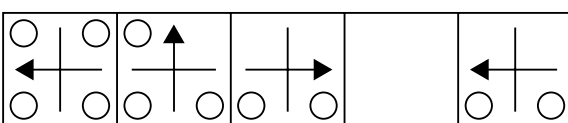
B

C

D

E

15



A

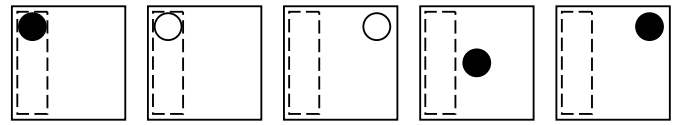
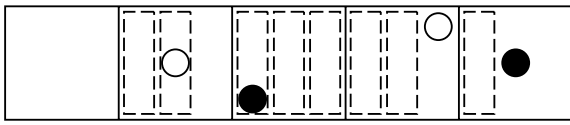
B

C

D

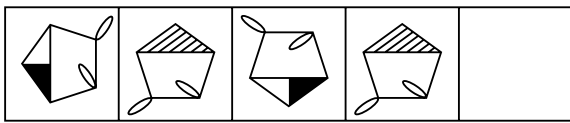
E

16



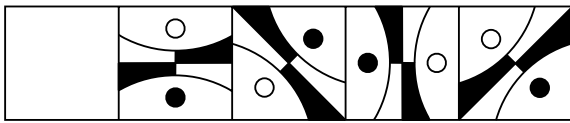
A B C D E

17



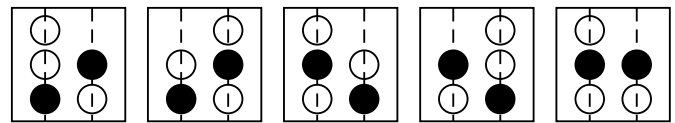
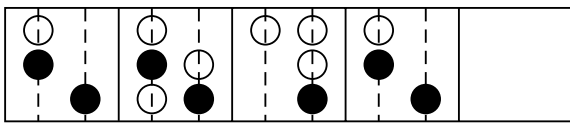
A B C D E

18



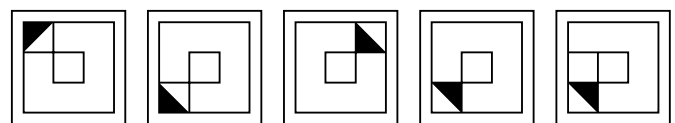
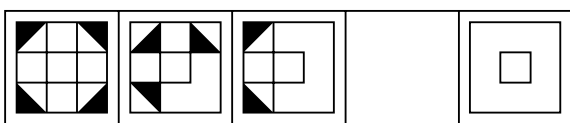
A B C D E

19



A B C D E

20



A B C D E



## Section 2

On the left of the example below are two shapes with an arrow between them. Decide how the second is related to the first. After these there is a third shape, then an arrow and then five more shapes. Decide which of the five shapes goes with the **third** one to **make a pair** like the two on the left. Its letter has been marked on your answer sheet.

### Example

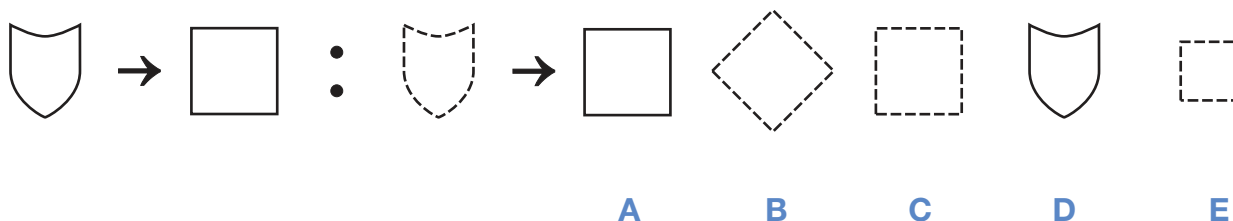


**Answer: B**

The shape rotates 180° but doesn't change size.

Now do the two practice questions below.

### P1



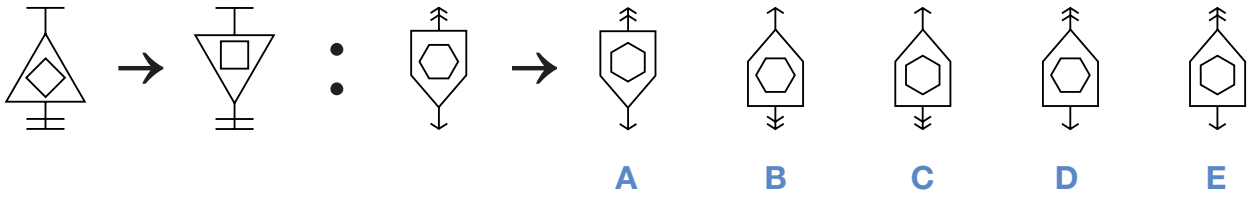
In the two shapes on the left, we can see that the shape changes from a shield to a square but the size remains the same and so does the line style. This means that the dashed shield will change to a dashed square of the same size. This makes **C** the correct answer.

### P2

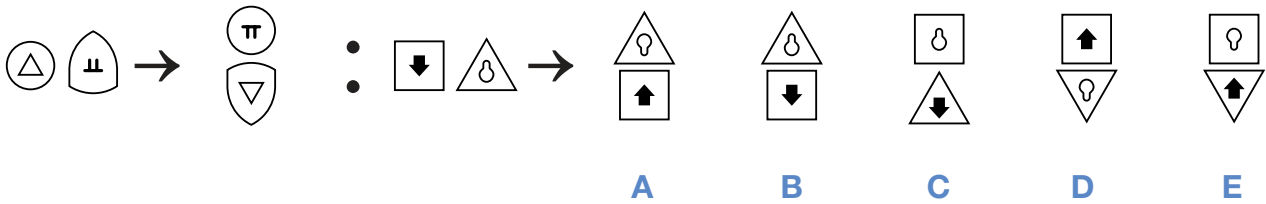


In the two shapes on the left, we can see that the shapes stay the same but there is a reversal of shading. The third shape is a small white 'keyhole' inside a black shaded six-sided figure so shape four must be the same but with reverse shading. Therefore, **A** is the correct answer.

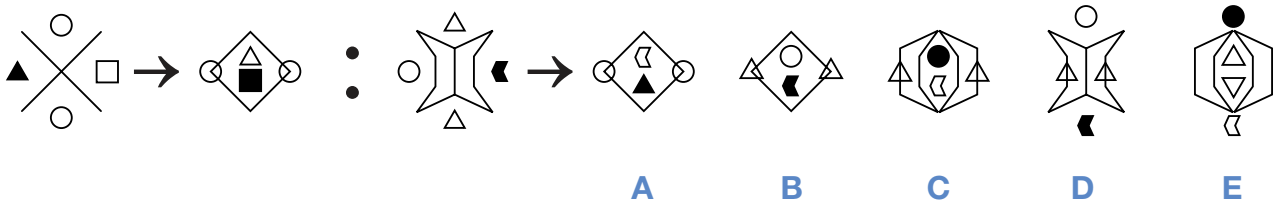
21



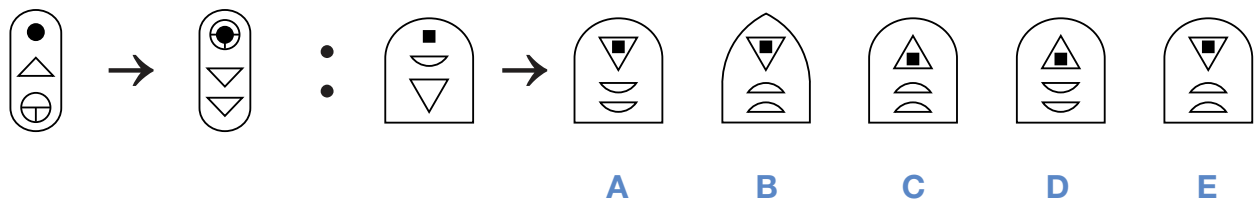
22



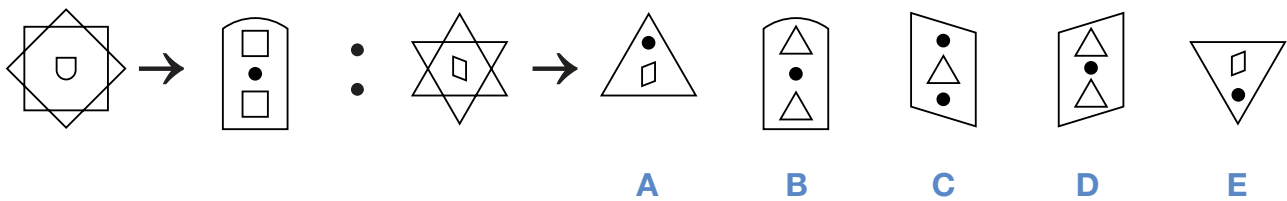
23



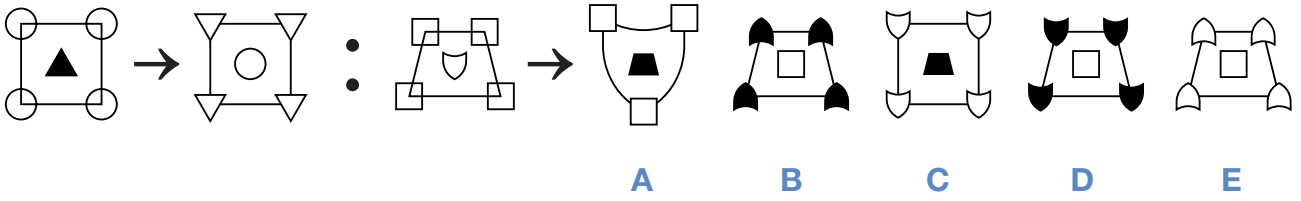
24



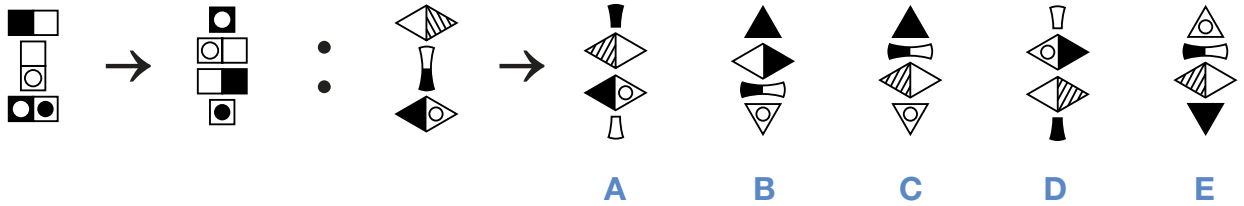
25



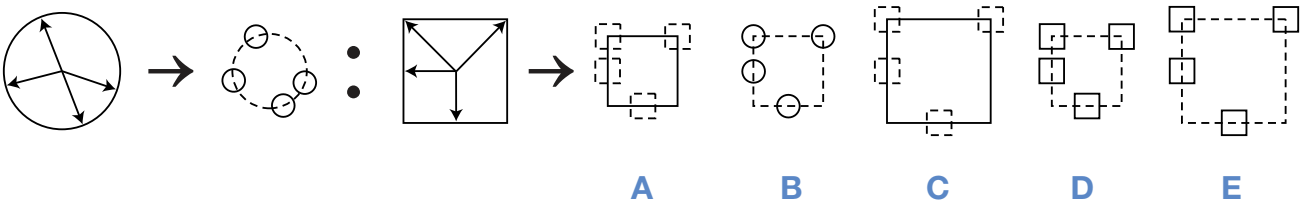
26



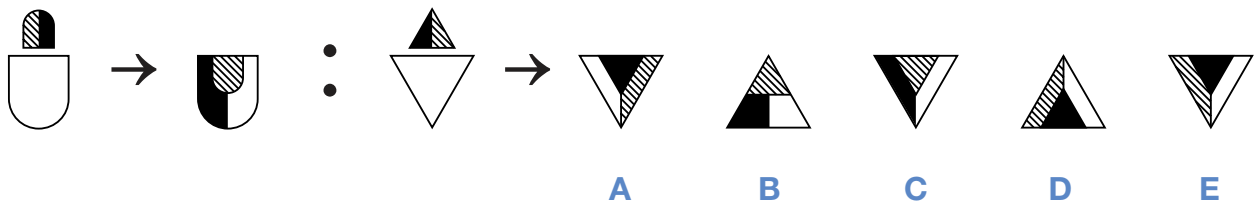
27



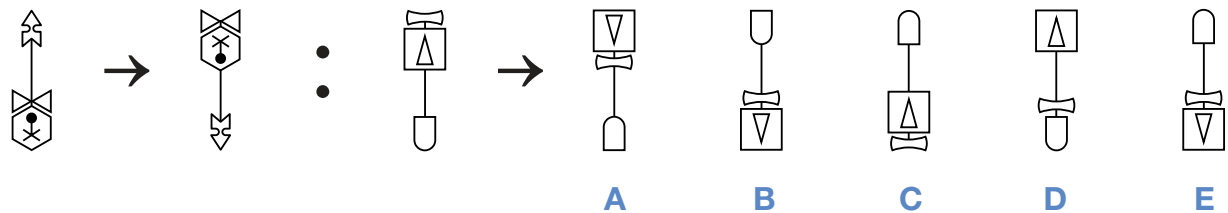
28



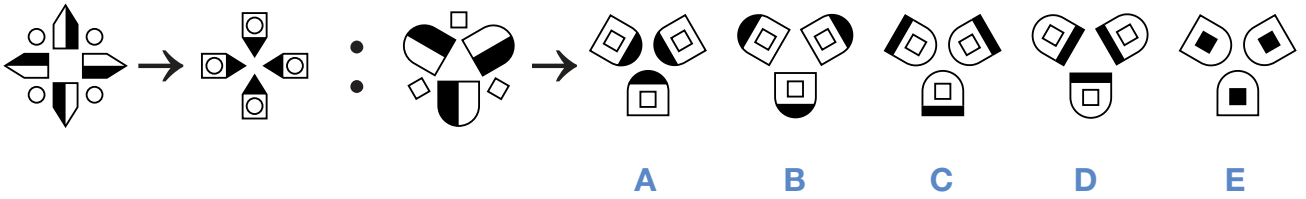
29



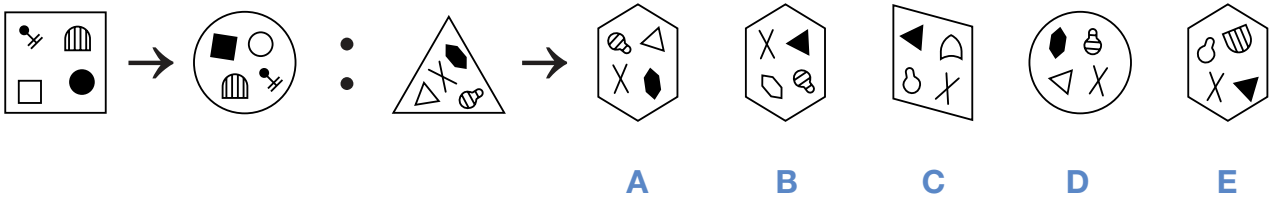
30



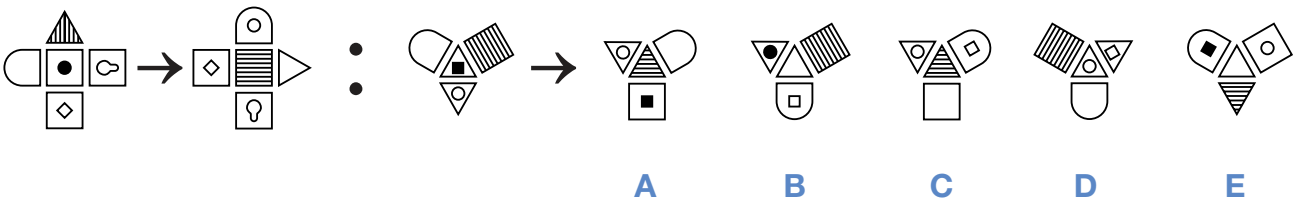
31



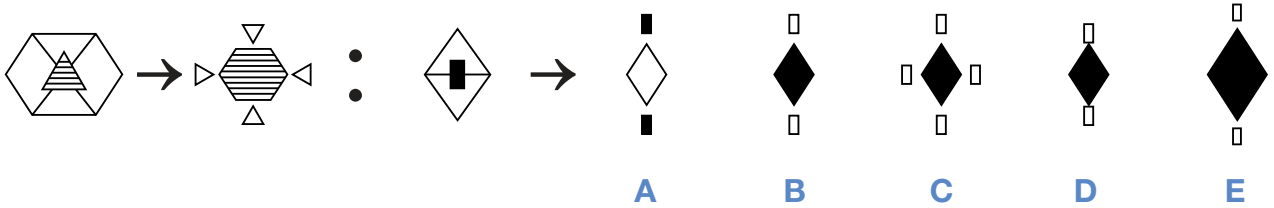
32



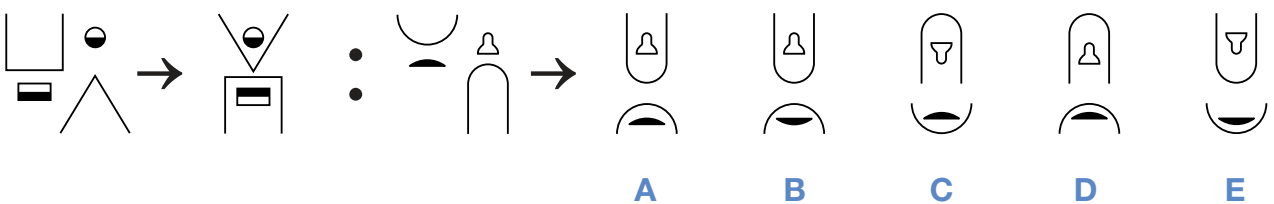
33



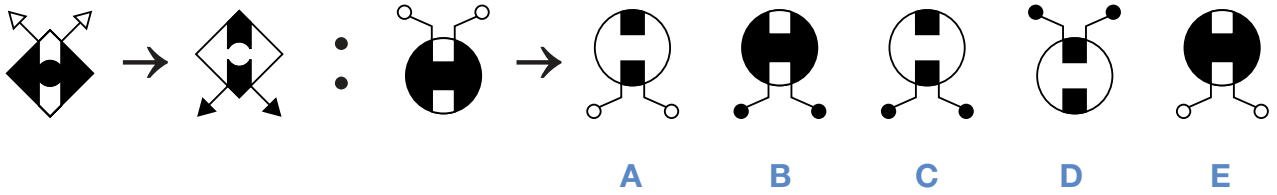
34



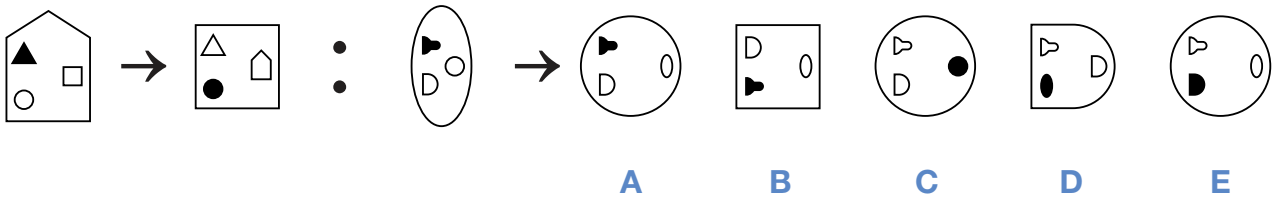
35



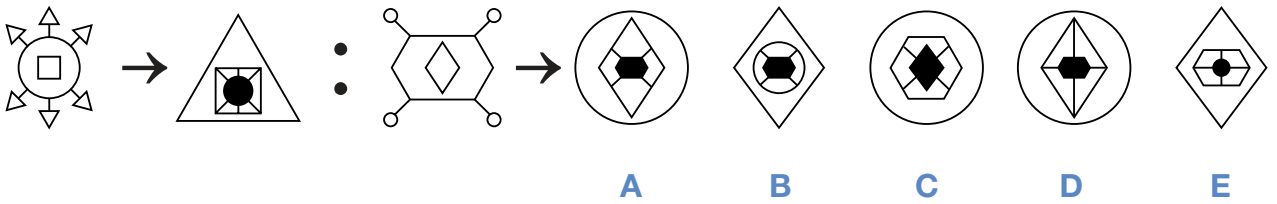
36



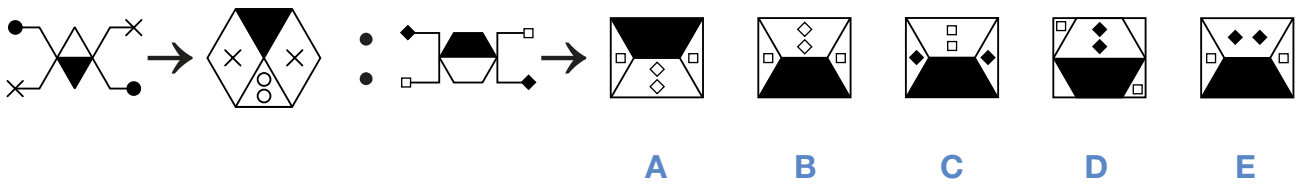
37



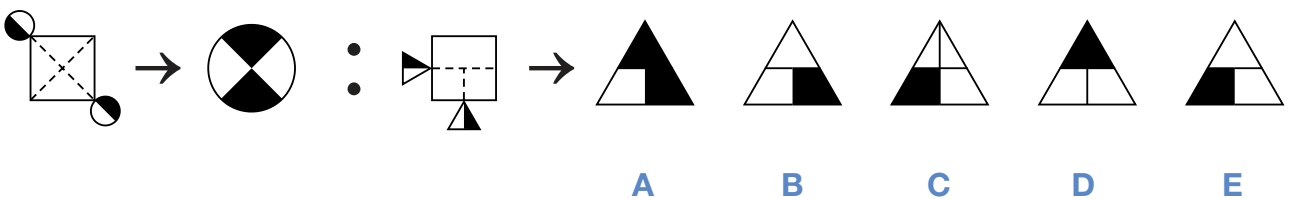
38



39



40

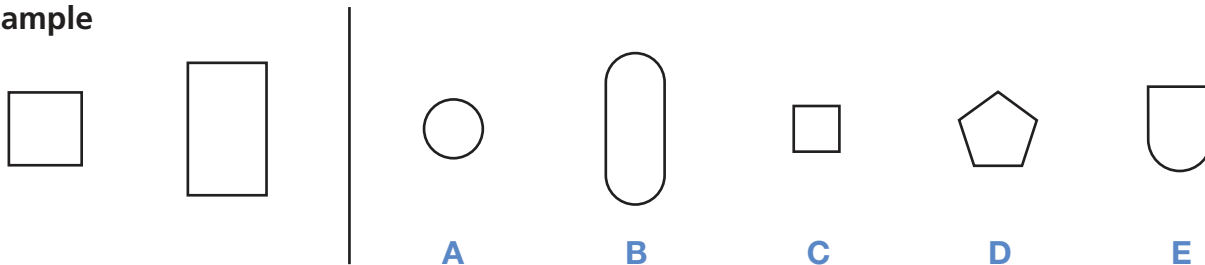




# Section 3

On the left of the example below there are two figures that are alike. On the right there are five more figures: one of these is **most like** the two figures on the left and its letter has been marked on your answer sheet.

**Example**

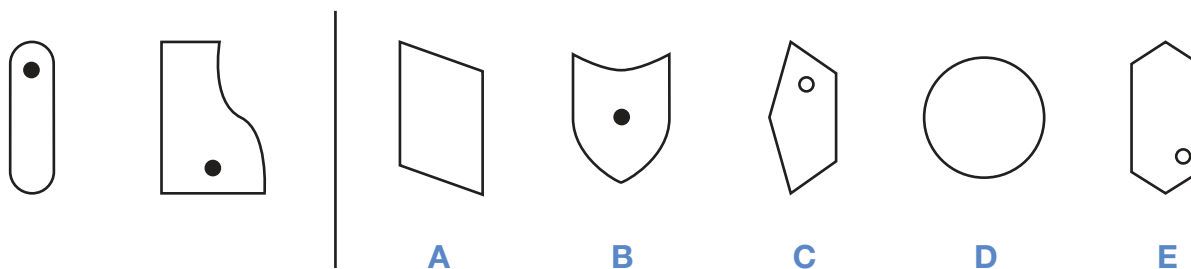


**Answer: C**

The two shapes on the left are alike in having four sides. They are not identical (the dimensions of the sides vary) but what they share in common is having four sides.

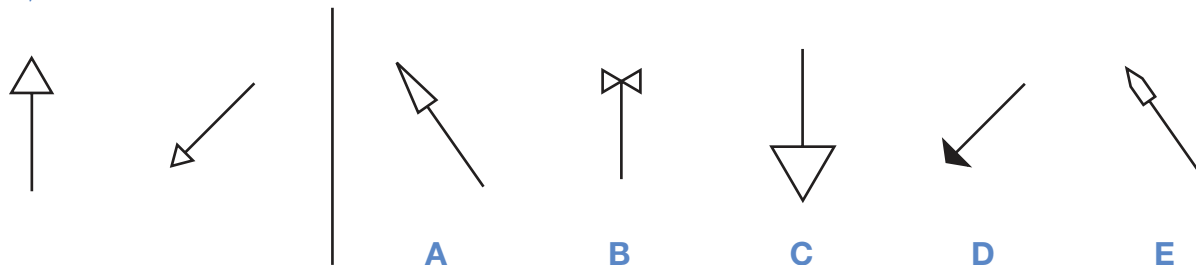
Now do the two practice questions below.

## P1



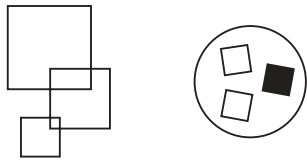
The two figures on the left both contain a small black circle. Only one of the five figures on the right, option **B**, also contains a small black circle, so this is the correct answer.

## P2



The two figures on the left have an arrow with an arrowhead which is an unshaded equilateral triangle (a triangle in which all three sides are equal). Only answer option **C** has an unshaded equilateral triangle as the arrowhead. The size of the arrowhead is irrelevant and so is the direction in which the arrow is pointing.

41



A

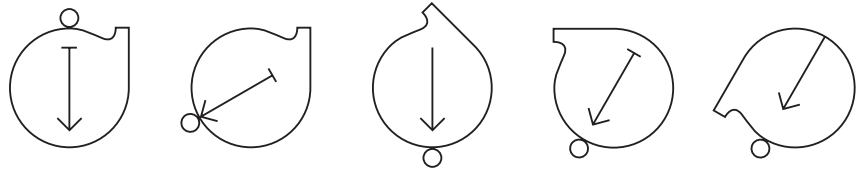
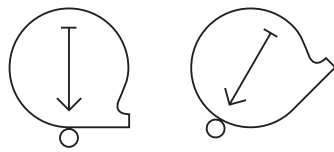
B

C

D

E

42



A

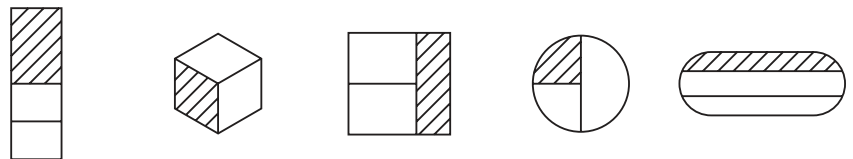
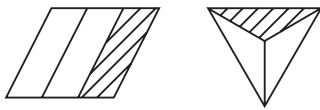
B

C

D

E

43



A

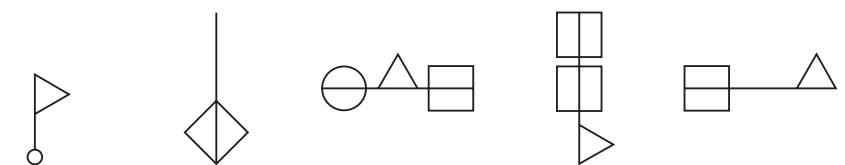
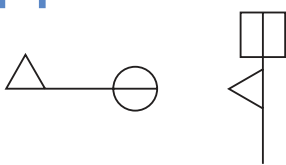
B

C

D

E

44



A

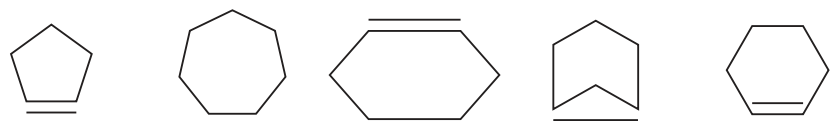
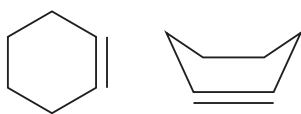
B

C

D

E

45



A

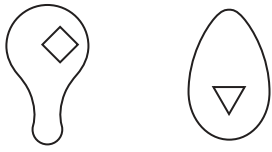
B

C

D

E

46



A

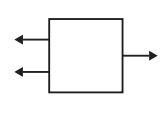
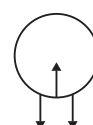
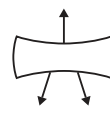
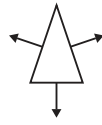
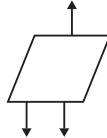
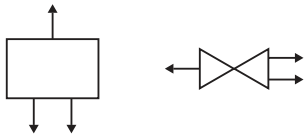
B

C

D

E

47



A

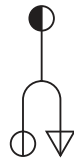
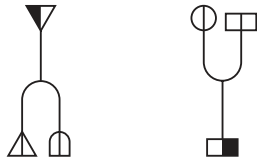
B

C

D

E

48



A

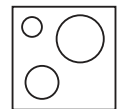
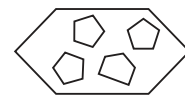
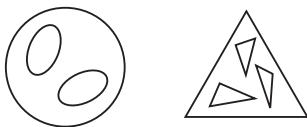
B

C

D

E

49



A

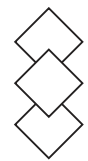
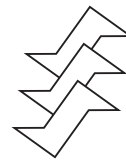
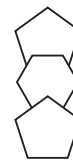
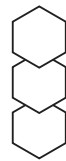
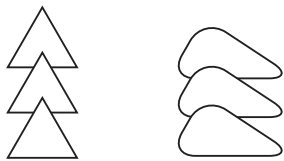
B

C

D

E

50



A

B

C

D

E

51



A

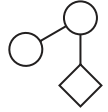
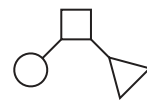
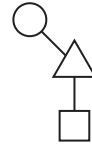
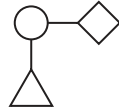
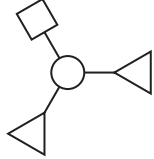
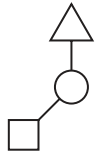
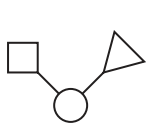
B

C

D

E

52



A

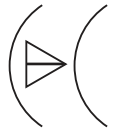
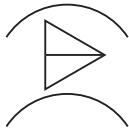
B

C

D

E

53



A

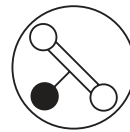
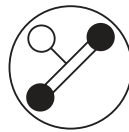
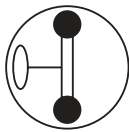
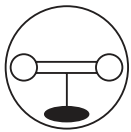
B

C

D

E

54



A

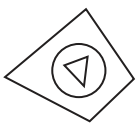
B

C

D

E

55



A

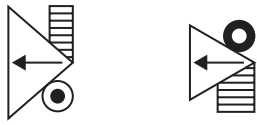
B

C

D

E

56



A



B



C

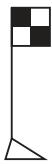


D



E

57



A



B



C



D



E

58



A



B



C

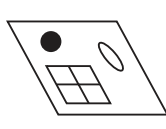


D

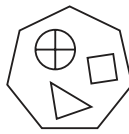


E

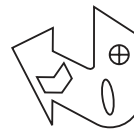
59



A



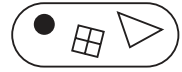
B



C

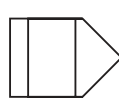
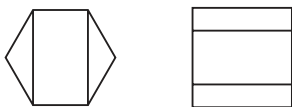


D

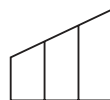


E

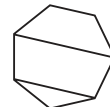
60



A



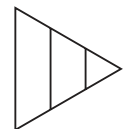
B



C



D

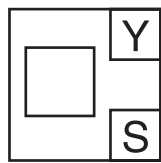
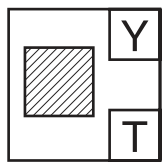
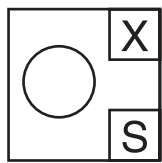


E

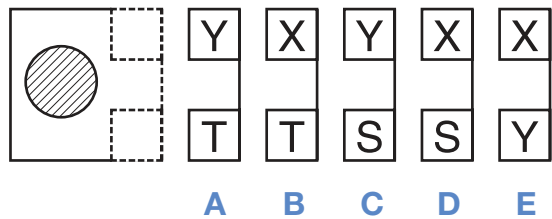
# Section 4

To answer these questions you have to work out a code. In the boxes on the left are shapes and the code letters that go with them. The top letters mean something different to the bottom ones. You must decide how the letters go with the shapes. Then find the correct code for the **test shape** from the set of five codes on the right and **mark its letter on your answer sheet**. The examples below have been done for you and the answers marked on the answer sheet.

## Example 1



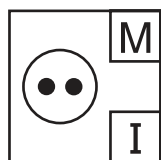
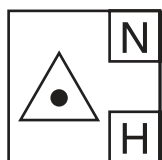
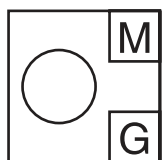
TEST SHAPE



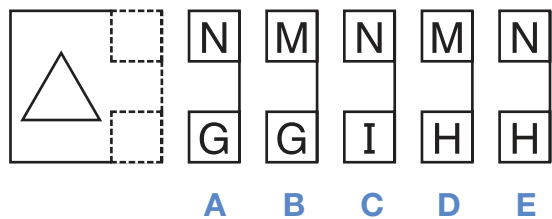
**Answer: B**

In the example above, both squares have a Y at the top but the circle has an X, so the top code must be for shape. Both white shapes have an S at the bottom, but the shaded shape has a T, so the bottom code must be for shading. The test shape is a shaded circle so its code letters must be X for circle and T for shading, and **B** has been marked on the answer sheet. Now look at the second example:

## Example 2



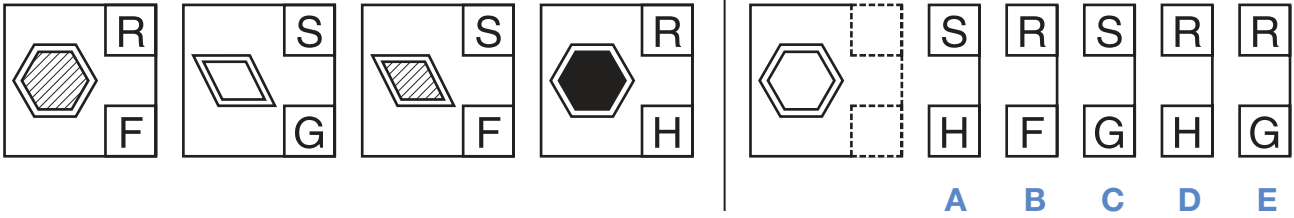
TEST SHAPE



**Answer: A**

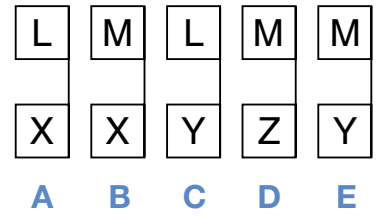
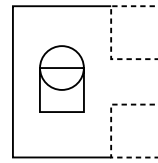
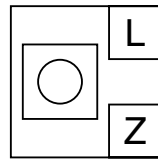
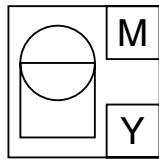
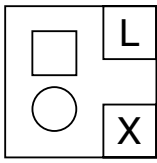
Both circles have an M at the top but the triangle has an N, so the top code must be for shape. The bottom code letter is different for each shape so G, H and I must be the codes for no dot, one dot and two dots. The test shape is a triangle with no dots so its code letters must be N for triangle and G for no dots, and **A** has been marked on the answer sheet. Now do the practice question below. **Remember there is a new code for each question.**

# P1

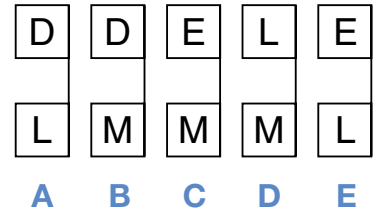
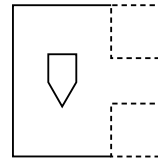
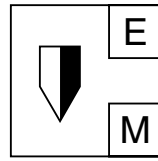
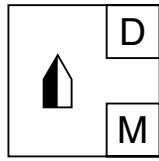
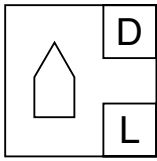


Both six-sided shapes have an R at the top and both four-sided shapes have an S, so the top code must be for the shape. The bottom codes show that both shapes with diagonal lines have an F, the unshaded shape a G and the shaded shape an H, so the bottom codes must be for the shading. The test shape is six-sided and unshaded so its code letters must be R for shape and G for shading, so **E** is the correct answer.

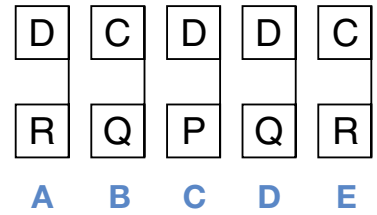
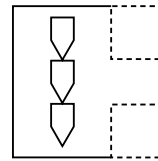
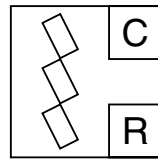
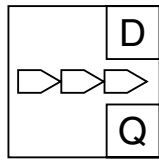
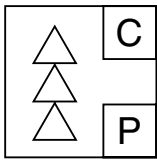
61



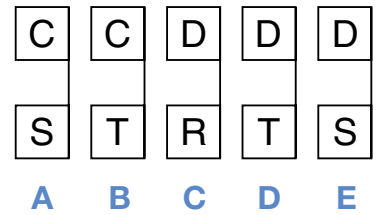
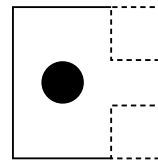
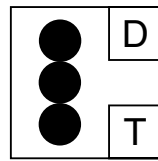
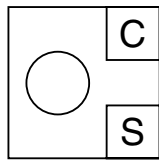
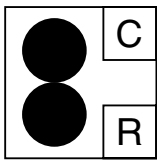
62



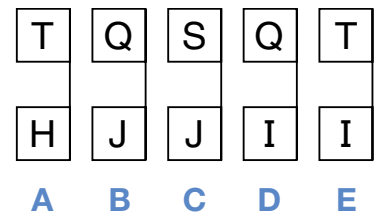
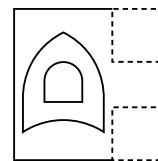
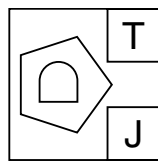
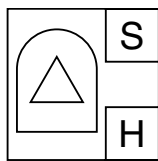
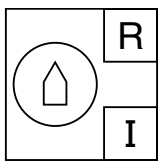
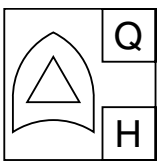
63



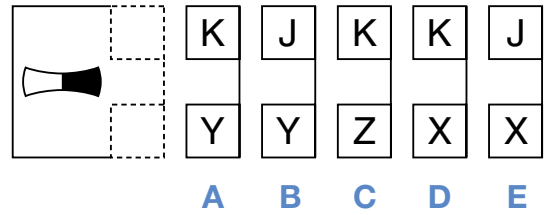
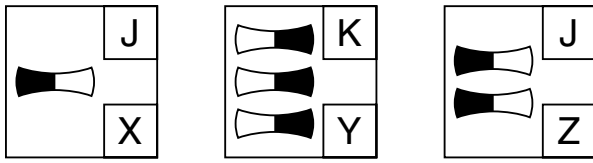
64



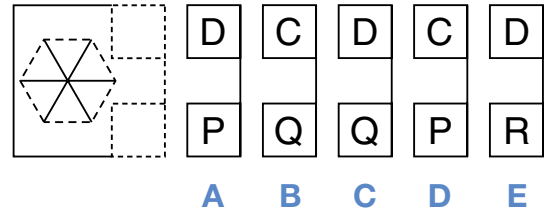
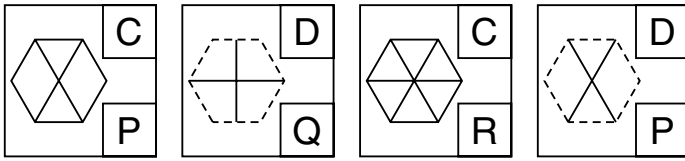
65



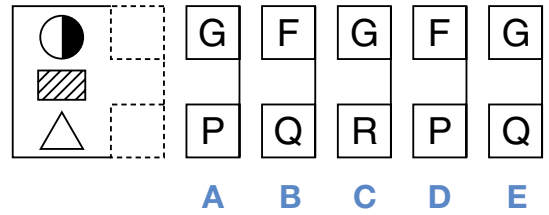
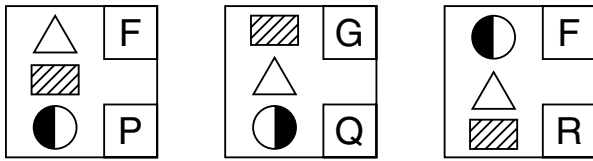
66



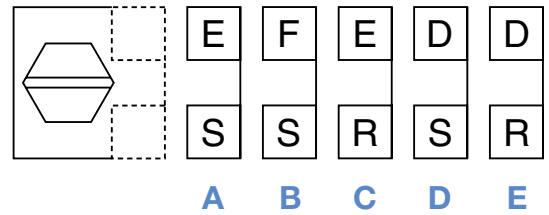
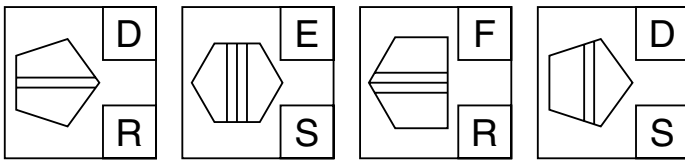
67



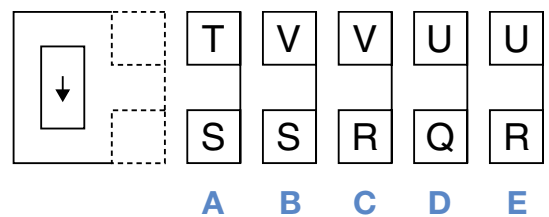
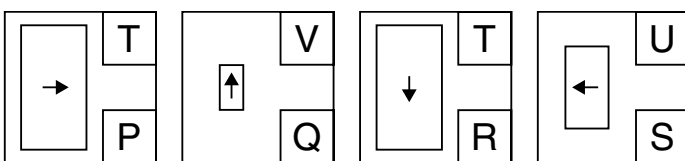
68



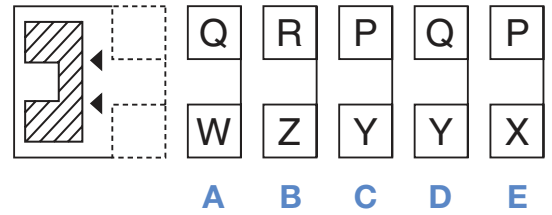
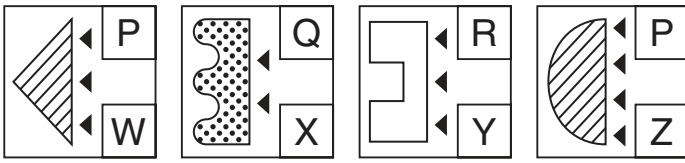
69



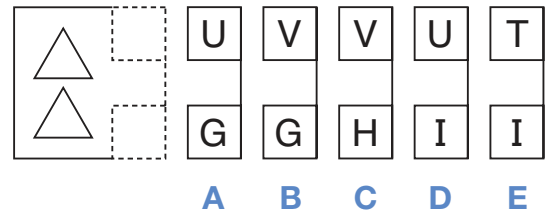
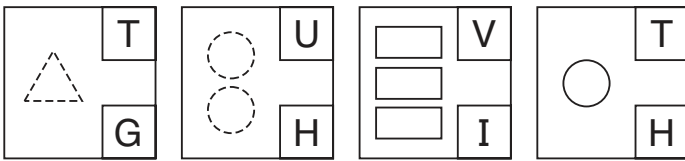
70



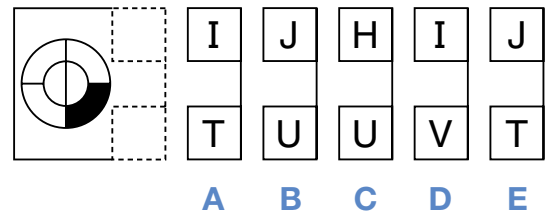
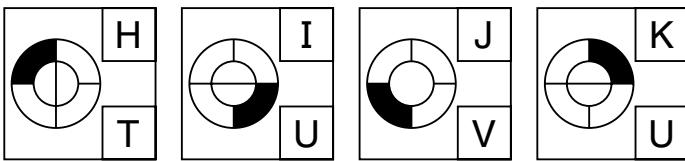
71



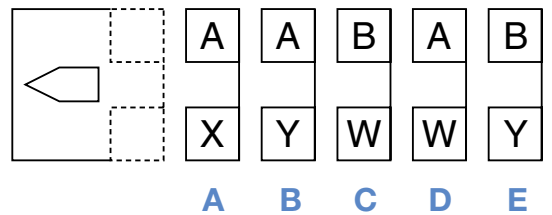
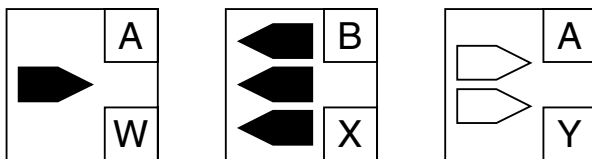
72



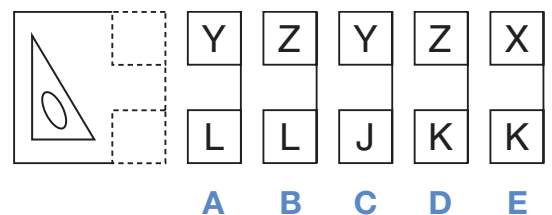
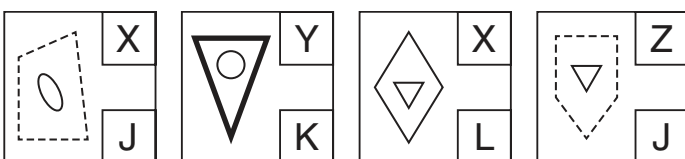
73



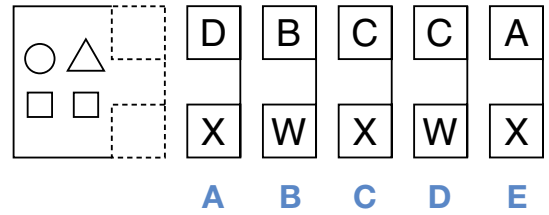
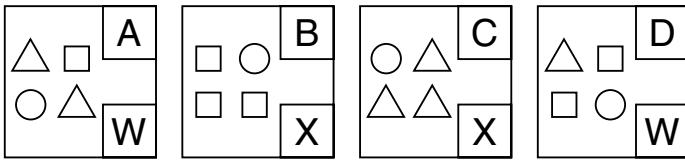
74



75

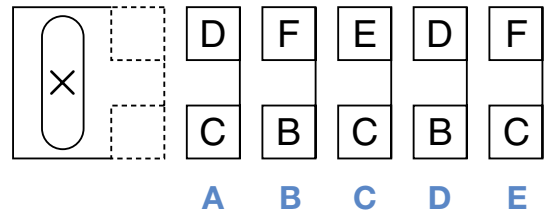
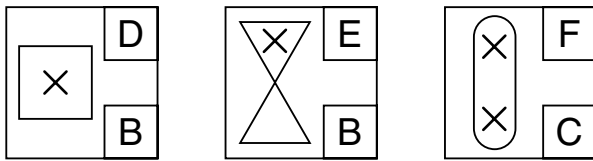


76



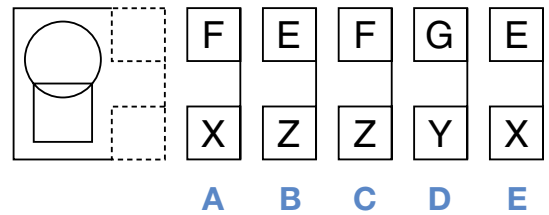
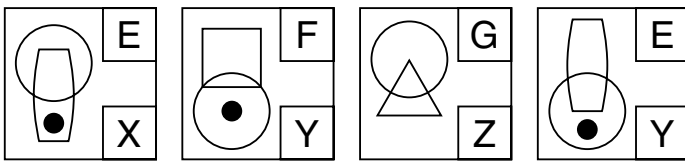
A B C D E

77



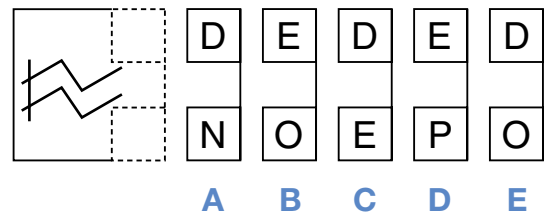
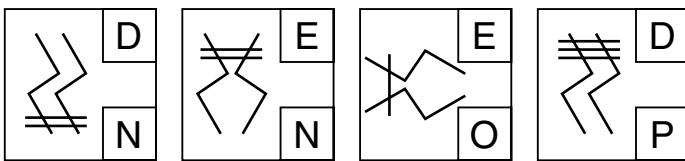
A B C D E

78



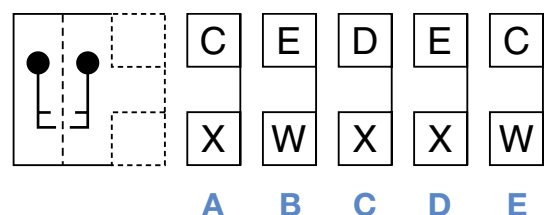
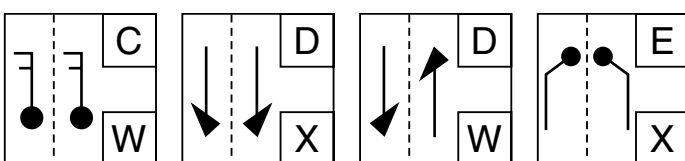
A B C D E

79



A B C D E

80



A B C D E

Copyright © GL Assessment, 2017.

All rights reserved, including translation. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, recording or duplication in any information storage and retrieval system, without permission in writing from the publishers.

Published by GL Assessment, 1st Floor, Vantage London, Great West Road, Brentford TW8 9AG.

Printed in Great Britain.

Code 6853 929  
1(07.17) PF



# Paper Notes: 11+ Non-Verbal Reasoning Question Booklet (Test 1)

Compiled by [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk) to help you get the most from this paper.

## Overview

---

This is a **GL Assessment 11+ Non-Verbal Reasoning** practice paper, designed to familiarise students with the types of question they will encounter in selective entrance examinations for secondary schools. It is a **multiple-choice test** containing **80 questions** divided into four distinct sections, each testing a different strand of visual reasoning.

The paper assesses pattern recognition, shape transformation, visual comparison, and code breaking. Each section begins with a worked example and practice questions accompanied by detailed explanations, which helps students understand the logic behind each question type before tackling the main set. This familiarisation format is particularly valuable for students who are new to non-verbal reasoning or who need to build confidence in interpreting abstract visual information under timed conditions.

This resource is suitable for Year 6 students preparing for 11+ entrance exams, particularly those applying to grammar schools or independent schools that use GL Assessment style tests. The paper is not specific to any individual school and provides broad practice applicable to a range of selective entrance contexts. Its structure and question types are representative of the GL Assessment question bank, making it an effective diagnostic tool as well as a revision resource.

## How this paper is organised

---

The paper is organised into **four distinct sections**, each testing a different non-verbal reasoning skill. **Section 1** (questions 1 to 20) focuses on **sequence completion**; students must identify the missing shape in a series by working out the underlying rule. **Section 2** (questions 21 to 40) presents **analogies**, where a transformation applied to one pair of shapes must be replicated on a second pair.

**Section 3** (questions 41 to 60) is a **similarity exercise**; students must identify which of five options shares a common feature with two given figures. **Section 4** (questions 61 to 80) tests **code breaking**, requiring students to decipher the relationship between shapes and letter codes, then apply that logic to a test shape. Each section includes a worked example with a detailed explanation, followed by one or two practice questions with solutions provided.

There is no overall time limit given on this familiarisation paper, though in a real exam setting students would typically have around 50 to 60 minutes to complete a paper of this length. The questions are presented in a clear layout with answer options labelled A to E, designed for completion on a separate multiple-choice answer sheet.

## Topics covered

---

- Sequence completion with shape transformations, including rotation, reflection, shading changes, and incremental additions or deletions of elements
- Visual analogies involving shape-to-shape transformations, such as inversion of shading, changes in size, rotation by  $90^\circ$  or  $180^\circ$ , and shape substitution
- Identifying common features between figures, such as shared number of sides, presence of specific internal shapes, line styles, shading patterns, or symmetry properties
- Code breaking requiring students to decode the relationship between shape attributes (e.g. type, shading, orientation, number of elements) and letter codes, then apply the logic to a test shape
- Pattern recognition across alternating sequences, where rules apply to every other figure rather than consecutively
- Spatial reasoning involving tracking the position, orientation, and layering of shapes within a series or analogy
- Analysis of shape attributes such as number of sides, internal divisions, shading (solid, unshaded, hatched), and the presence or absence of additional marks or dots
- Logical deduction to eliminate incorrect answer options by systematically testing each rule or transformation against the given information
- Recognition of transformations that combine multiple operations, such as rotation plus shading inversion, or reflection plus shape substitution
- Understanding of when features such as size or position are irrelevant distractors, and focusing only on the attributes that define the logical rule

## How to use this paper for revision

---

- Begin by working through the examples and practice questions carefully, reading the explanations provided to understand the reasoning behind each answer before attempting the main questions.
- When tackling sequence questions, look for changes between consecutive figures: rotation, reflection, addition or removal of elements, and alternating patterns.
- For analogy questions, identify the transformation applied to the first pair (e.g. inversion of shading, rotation, shape change) and apply the same operation to the third shape.
- In similarity questions, list the attributes of the two given figures (number of sides, shading, internal shapes) and identify which feature they share, then find the answer option that also has that feature.
- Code breaking questions require you to work out what the top and bottom letters represent by comparing shapes; test your hypothesis against all given examples before choosing your answer.
- If a question seems confusing, eliminate obviously wrong answers first; this narrows your choices and increases the chance of selecting the correct option.
- Practice recognising common transformations such as  $90^\circ$  and  $180^\circ$  rotations, horizontal and vertical reflections, and shading inversions, as these appear frequently across all sections.

## Common mistakes to avoid

---

- Assuming a sequence rule applies to every figure, when in fact it alternates every other figure; always check whether the pattern holds for positions 1, 3, 5 independently from 2 and 4.
- Overlooking shading differences in analogy questions, focusing only on shape or orientation and missing that the transformation involves inverting solid and unshaded areas.
- In similarity questions, choosing an answer that shares multiple features with one of the given figures rather than the single feature common to both; the correct answer must match the shared attribute only.
- Misinterpreting code breaking questions by confusing which letter set (top or bottom) codes for which attribute; systematically test each hypothesis against all given shapes.
- Rushing through the worked examples and practice questions without reading the explanations, then repeating the same logical errors in the main questions.
- Assuming size, position, or orientation matter when they are irrelevant to the rule; focus on the attributes explicitly varied or held constant across the series or pair.

## Exam technique

---

Begin by reading the instructions and worked examples for each section carefully, even if you have practised non-verbal reasoning before. The explanations model the logical steps required, and understanding them will help you approach similar questions methodically. Work through each section in order, but if a question is taking too long, mark it and move on; you can return to difficult questions if time permits.

In a timed exam setting, aim to spend no more than 45 seconds per question on average, which allows time for checking. For sequence and analogy questions, write down or mentally note the transformation you identify before looking at the answer options; this prevents you from being misled by plausible distractors. In code breaking questions, write out what each letter represents before attempting to code the test shape, as this reduces errors caused by misremembering your hypothesis.

If working through this paper at home, mark your answers on a separate sheet and review any incorrect responses using the explanations provided in the practice questions as a guide. This will help you identify whether mistakes are due to misunderstanding the question type, missing a step in the logic, or rushing. Regular practice with papers of this type improves both speed and accuracy, so repeat similar exercises until each section feels routine.

## What to revise alongside this paper

---

Non-verbal reasoning skills underpin a range of curriculum areas, particularly mathematics topics involving geometry, symmetry, transformations, and spatial awareness. Practising shape and space work at Key Stage 2 level, including reflections, rotations, and tessellations, will reinforce the visual manipulation skills tested here. Similarly, working on logic puzzles, Sudoku, and pattern-based games develops the systematic reasoning required for code breaking and sequence questions.

Students preparing for 11+ exams should also practise verbal reasoning papers, as many selective schools include both strands in their entrance assessments. Familiarity with working under timed conditions is essential, so complete additional practice papers from GL Assessment, Bond, or other publishers, aiming to improve both accuracy and speed. If this paper feels challenging, revisit the worked examples and focus on mastering one section at a time before attempting the full set of 80 questions.

For students who find non-verbal reasoning intuitive, progress to more complex papers with tighter time limits or questions involving three-dimensional shapes, overlapping figures, or multi-step transformations. Understanding the logic of abstract patterns also supports skills in computer science, particularly algorithmic thinking and problem-solving, making non-verbal reasoning practice valuable beyond the immediate context of entrance exams.

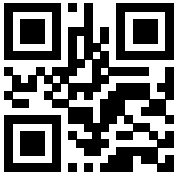
## Key terms

---

**Sequence completion, Analogy, Transformation, Rotation, Reflection, Inversion, Shading, Pattern recognition, Code breaking, Attribute, Similarity, Spatial reasoning, Distractor, Multiple-choice, Non-verbal reasoning**

---

For more free 11+ practice papers, past papers and online practice tests, visit [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk).



Pupil's Name
School Name

DATE OF TEST		
Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

UNIQUE PUPIL NUMBER									
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

SCHOOL NUMBER					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

DATE OF BIRTH		
Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

Please mark boxes with a thin horizontal line like this .

## SECTION 1

EXAMPLE	
A	<input type="checkbox"/>
B	<input checked="" type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

1	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

2	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

3	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

4	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

5	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

6	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

7	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

P1	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

P2	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

8	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

9	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

10	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

11	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

12	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

13	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

14	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

15	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

16	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

17	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

18	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

19	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

20	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

## SECTION 2

EXAMPLE	
A	<input type="checkbox"/>
B	<input checked="" type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

21	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

22	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

23	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

24	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

25	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

26	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

27	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

P1	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

P2	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

28	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

29	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

30	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

31	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

32	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

33	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

34	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

35	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

36	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

37	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

38	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

39	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

40	A <input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>



PLEASE TURN OVER

Copyright © 2010 GL Assessment

Please mark boxes with a thin horizontal line like this .

### SECTION 3

**EXAMPLE**

A   
B   
C   
D   
E

**41**

A   
B   
C   
D   
E

**42**

A   
B   
C   
D   
E

**43**

A   
B   
C   
D   
E

**44**

A   
B   
C   
D   
E

**45**

A   
B   
C   
D   
E

**46**

A   
B   
C   
D   
E

**47**

A   
B   
C   
D   
E

**P1**

A   
B   
C   
D   
E

**P2**

A   
B   
C   
D   
E

**48**

A   
B   
C   
D   
E

**49**

A   
B   
C   
D   
E

**50**

A   
B   
C   
D   
E

**51**

A   
B   
C   
D   
E

**52**

A   
B   
C   
D   
E

**53**

A   
B   
C   
D   
E

**54**

A   
B   
C   
D   
E

**55**

A   
B   
C   
D   
E

**56**

A   
B   
C   
D   
E

**57**

A   
B   
C   
D   
E

**58**

A   
B   
C   
D   
E

**59**

A   
B   
C   
D   
E

**60**

A   
B   
C   
D   
E

### SECTION 4

**EXAMPLE 1**

A   
B   
C   
D   
E

**EXAMPLE 2**

A   
B   
C   
D   
E

**P1**

A   
B   
C   
D   
E

**61**

A   
B   
C   
D   
E

**62**

A   
B   
C   
D   
E

**63**

A   
B   
C   
D   
E

**64**

A   
B   
C   
D   
E

**65**

A   
B   
C   
D   
E

**66**

A   
B   
C   
D   
E

**67**

A   
B   
C   
D   
E

**68**

A   
B   
C   
D   
E

**69**

A   
B   
C   
D   
E

**70**

A   
B   
C   
D   
E

**71**

A   
B   
C   
D   
E

**72**

A   
B   
C   
D   
E

**73**

A   
B   
C   
D   
E

**74**

A   
B   
C   
D   
E

**75**

A   
B   
C   
D   
E

**76**

A   
B   
C   
D   
E

**77**

A   
B   
C   
D   
E

**78**

A   
B   
C   
D   
E

**79**

A   
B   
C   
D   
E

**80**

A   
B   
C   
D   
E

# Paper Notes: 11+ Non-Verbal Reasoning Answer Sheet (Test 1)

Compiled by [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk) to help you get the most from this paper.

## Overview

---

This is the **GL Assessment 11+ Non-Verbal Reasoning Answer Sheet** for Test 1, designed for pupils preparing for **11+ entrance examinations**. As a multiple-choice answer sheet, it provides the recording framework for **80 questions** divided across four distinct sections, each testing different aspects of visual logic and spatial reasoning.

The sheet is structured to capture pupil responses using a standardised marking format where students fill boxes with a thin horizontal line. Each section includes worked examples and practice questions labelled P1 and P2 to familiarise pupils with the question types before they tackle the scored items. The layout follows GL Assessment's standard format, commonly used in selective school entrance examinations across the UK.

This document is intended for use by pupils sitting the corresponding question paper, by parents or tutors marking completed attempts, and by teachers administering practice tests. The clean, methodical layout allows for straightforward marking and immediate identification of patterns in errors across the four sections, making it a practical tool for diagnostic assessment and targeted revision.

## How this paper is organised

---

The answer sheet is divided into **four sections**, mirroring the structure of the accompanying question paper. **Section 1** runs from questions 1 to 20, **Section 2** covers questions 21 to 40, **Section 3** spans questions 41 to 60, and **Section 4** contains questions 61 to 80. Each section opens with a worked example to demonstrate the expected answer format, followed by two practice questions (P1 and P2) before the scored items begin.

Every question offers **five possible answers** labelled A, B, C, D, and E, represented by empty boxes that pupils mark with a horizontal line. The sheet includes fields for recording the pupil's name, school name, unique pupil number, school number, date of test, and date of birth at the top of the first page. These administrative fields support accurate record-keeping in formal test conditions.

The layout is designed for optical mark recognition or manual marking, with clear numbering and consistent spacing throughout. The two-page format ensures all 80

answers are captured efficiently, with sections 1 and 2 on the first page and sections 3 and 4 on the second page.

## Topics covered

---

- Pattern recognition involving sequences of abstract shapes that follow logical transformations
- Spatial reasoning requiring manipulation of figures through rotation, reflection, or translation
- Visual logic puzzles that test the ability to identify relationships between shapes and apply rules consistently
- Shape analysis focusing on properties such as symmetry, orientation, shading, and internal detail
- Analogical reasoning where pupils identify parallel relationships between pairs of figures
- Series completion tasks demanding prediction of the next figure in a visual sequence
- Odd one out identification requiring discrimination between figures based on shared and unique properties
- Code-breaking puzzles that combine shape transformations with symbolic substitution

## How to use this paper for revision

---

- Before attempting timed practice, complete several examples slowly to understand the transformation rules in each section without pressure.
- Use a ruler or straight edge when marking boxes to ensure clean, unambiguous lines that won't confuse automated or manual marking systems.
- Review incorrect answers immediately after marking to identify whether errors stem from misunderstanding the rule, rushing, or careless transcription mistakes.
- Practise recognising common transformation patterns such as 90-degree rotations, mirror reflections, shading inversions, and shape overlays until they become automatic.
- Keep a revision log noting which question types cause difficulty, then focus additional practice on those specific patterns before the exam.
- If using this sheet for self-assessment, mark your work against the official answer key, then revisit the corresponding question paper to understand why each correct answer works.

## Common mistakes to avoid

---

- Marking the wrong box entirely due to losing track of question numbers, especially when working quickly through similar-looking abstract shapes.
- Failing to complete the practice questions P1 and P2 before starting the scored section, missing the opportunity to calibrate understanding of the question type.
- Making faint or incomplete marks that may not register clearly, leading to answers being marked as omitted rather than incorrect.
- Confusing clockwise and anticlockwise rotations, or assuming a 180-degree turn when only a 90-degree transformation is required.
- Overlooking subtle differences in shading, line thickness, or internal detail when comparing shapes, leading to incorrect identification of patterns.
- Rushing through easier early questions and making careless errors, then running short of time on the more challenging items later in each section.

## Exam technique

---

When using this answer sheet in timed conditions, allocate roughly **20 minutes per section** if the full test runs to 80 minutes, though actual time limits vary by test provider. Begin by reading the worked example carefully and completing both practice questions to confirm your understanding of the question format before moving to the scored items. Mark your chosen answer clearly with a single horizontal line; avoid ticks, crosses, or shading, as these may not be recognised by optical scanners.

Work methodically through each section rather than skipping around. If a question proves difficult, mark your best guess and circle the question number lightly on the sheet so you can return if time permits. Many pupils find it helpful to eliminate obviously incorrect options first, narrowing the choice before committing to an answer. This strategy is particularly effective in non-verbal reasoning, where one or two options often violate the pattern rule immediately.

After completing the test, if time allows, scan through your answers to check for accidental omissions or double-marked boxes. When marking your own work using the official answer key, tally your score per section to identify which types of visual reasoning require further practice. Use errors as diagnostic tools: patterns in mistakes often reveal specific skills that need strengthening, such as mirror symmetry recognition or multi-step transformations.

## What to revise alongside this paper

---

Pupils working through this answer sheet should also practise **verbal reasoning** papers from the same GL Assessment series, as many 11+ exams combine both disciplines. Skills in identifying logical patterns transfer directly between verbal and non-verbal contexts, and balanced practice across both areas strengthens overall reasoning ability. Understanding geometric vocabulary (such as congruence, tessellation, and bilateral symmetry) supports more confident interpretation of shape-based puzzles.

For those finding the questions challenging, revisit foundation work on **2D and 3D shape properties**, including nets, cross-sections, and plan and elevation views. These topics, typically covered in upper primary maths, provide the spatial fluency that underpins non-verbal reasoning success. Conversely, pupils achieving high scores on this paper should progress to timed full-length GL Assessment practice tests and consider tackling CEM-style non-verbal reasoning, which often combines visual logic with numerical or verbal elements in a single multi-format paper.

Regular practice with **spatial puzzles** such as tangrams, pentominoes, and logic grid problems builds the flexible thinking required for exam success. Many pupils also benefit from reviewing worked solutions to sample questions, as understanding the reasoning process behind correct answers accelerates pattern recognition and reduces reliance on trial and error during timed tests.

## Key terms

---

**Multiple-choice, Visual reasoning, Pattern recognition, Spatial awareness, Rotation, Reflection, Symmetry, Transformation, Sequence completion, Analogical reasoning, Odd one out, Shape properties, Optical mark recognition, Diagnostic assessment**

---

For more free 11+ practice papers, past papers and online practice tests, visit [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk).

# Answer Keys

## Non-Verbal Reasoning Familiarisation 1

<b>Section 1</b>	<b>Section 2</b>	<b>Section 3</b>	<b>Section 4</b>
1. B	21. E	41. B	61. C
2. B	22. E	42. D	62. E
3. D	23. C	43. B	63. B
4. B	24. E	44. E	64. E
5. D	25. D	45. C	65. B
6. A	26. B	46. C	66. D
7. D	27. C	47. E	67. E
8. D	28. D	48. D	68. A
9. C	29. E	49. A	69. C
10. D	30. E	50. D	70. E
11. E	31. A	51. E	71. C
12. D	32. B	52. B	72. A
13. E	33. C	53. A	73. A
14. D	34. B	54. E	74. C
15. D	35. B	55. E	75. A
16. E	36. C	56. E	76. D
17. B	37. E	57. A	77. B
18. C	38. A	58. B	78. C
19. C	39. B	59. D	79. E
20. D	40. E	60. A	80. A

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

## Answers (Test 1)

Compiled by [SATs-Papers.co.uk](https://www.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 option (A–E) for all 80 questions but provides no working or explanation. Use it to mark your child's paper objectively, question by question, recording the total correct in each section. A single wrong answer does not mean your child cannot do that question type; check whether the mistake was a misread, a rushed guess, or a genuine gap in pattern-spotting.

Once you have totalled the marks, look through every incorrect answer with your child. For the questions below, we explain **why the right answer works** and what pattern or rule the question tests. If your child missed several questions of the same type, that signals a topic to practise further.

Mark firmly but fairly. Non-verbal reasoning rewards careful observation and systematic elimination; a careless slip under timed pressure is different from not understanding the rule at all. Use the worked examples to distinguish the two.

### Score interpretation

---

This 80-question paper divides into four sections of 20 questions each. Section 1 (complete-the-series), Section 2 (analogies), Section 3 (odd-one-out) and Section 4 (code-breaking) each test a distinct skill. A score above 70/80 (88 per cent) suggests strong non-verbal reasoning across all four question types and readiness for selective-school standard. Between 55 and 69 marks indicates solid ability but room to tighten technique, especially under time pressure.

If your child scores below 55, check whether one or two sections dragged the total down or whether errors spread evenly. Uneven section scores point to a specific skill gap—series questions reward noticing alternating rules, analogies depend on isolating the transformation, odd-one-out requires systematic comparison, and codes demand logical deduction. A low score across all four usually means your child needs more exposure to non-verbal puzzles rather than a fundamental barrier.

Because this is a familiarisation paper with worked examples in the question booklet, expect scores to be higher than in a timed mock. Use the result to identify which question types need isolated practice before attempting a full-length test under exam conditions.

## Worked examples

---

### Section 1: Complete the series, Q1–20

These questions reward spotting **two or more simultaneous rules**—rotation plus shading, size plus position, shape alternation plus line style. Children lose marks by assuming a single rule applies or by failing to track every element across the five boxes. The hardest questions in this section involve alternating patterns (odd-numbered boxes follow one rule, even-numbered another) or features that change every other step.

**Q5** : D

The circle and rectangle swap positions each step, and a new element appears in alternate boxes (first a dot, then a line). Box 5 must show the circle in the top-right and rectangle bottom-left, with a line added. Only option D matches both rules.

**Q11** : E

The large shape alternates triangle and circle; the small shapes cycle dot, triangle, circle. Box 5 needs a circle outside and a triangle inside. The shading of the triangle must also match the pattern—filled in this case—so E is correct.

**Q16** : E

The vertical bars slide one position right each time, and the dot alternates between the top-left and bottom-right corners. In box 5 the bars reach the far right and the dot returns to top-left, exactly as shown in E.

### Section 2: Analogies, Q21–40

Each question shows a transformation applied to the first pair, which you must **apply to the third shape**. Marks are lost when children copy a feature from the first pair instead of applying the rule. Common transformations include rotation, reflection, shading reversal, shape substitution, size change and adding or removing elements. Always ask: what single change turns shape A into shape B?

**Q22** : E

The outer shape stays the same but the inner symbols swap positions top-to-bottom. The third shape has a triangle (top) and a filled arrow (bottom); after the swap the arrow moves to the top and the triangle to the bottom, giving option E.

**Q27** : C

The transformation reverses all shading: filled becomes white, white becomes filled, hatched stays or swaps depending on the pair. The third shape has two filled diamonds and one striped; option C shows them with opposite shading, matching the rule.

**Q31** : A

The cross becomes a vertical column of four circles, preserving the central arrangement. The third shape is a ring of five squares; applying the rule turns it into five items arranged in a ring with one element changing position—only A replicates that structure and the small square's new shading.

**Q38** : A

The outer shape gains a set of stalks or lines radiating outward, and the inner shape becomes solid black. The third shape is a diamond with a small white square inside; adding stalks and filling the centre square gives option A.

### Section 3: Odd one out, Q41–60

Two shapes on the left share a hidden feature; one answer on the right also has that feature. Children lose marks by picking the shape that **looks most similar** instead of isolating the common rule—number of sides, type of shading, symmetry, number of internal elements, line style or orientation. Eliminate answers that lack the key feature rather than hunting for a match by appearance.

**Q43** : B

Both left-hand shapes are divided into exactly two sections, one shaded with diagonal lines. Option B is the only right-hand shape split into two parts with one section hatched, matching the rule precisely.

**Q49** : A

Each left-hand shape contains an odd number of simple geometric elements (three circles, three triangles). Option A contains a diamond with one small square and one line—three distinct elements in total—so it shares the odd-number rule.

**Q54** : E

Both shapes on the left show a line connecting three circles, with one circle filled black. Only option E replicates that structure: three circles joined by a line, one filled. The orientation of the line is irrelevant.

**Q58** : B

The left-hand shapes are both polygons (more than four sides) with exactly half shaded black on one side. Option B is a hexagon split vertically with the left half filled, matching both the polygon rule and the half-shading rule.

#### Section 4: Code-breaking, Q61–80

The top code-letter indicates one feature (usually shape or number of elements); the bottom letter indicates another (usually shading, size or orientation). Marks are lost when children guess instead of **deducing both codes systematically** by comparing the three example boxes. Write down which letter appears with which feature before looking at the answer options. Remember that each question has a completely new code.

**Q63** : B

Top letters: C appears with the stacked triangles, D with the row of arrows, so top = arrangement. Bottom letters: P appears with the stacked triangles, Q with the arrows, R with the diagonal boxes, so bottom = line style or fill. The test shape is three shield-shapes stacked, unshaded, matching D (arrangement) and Q (no fill), giving DQ—option B.

**Q71** : C

Top letters: P, Q, R, P cycle with the shading types (diagonal, dotted, white, diagonal again), so top = shading. Bottom letters: W, X, Y, Z follow the number of arrow symbols on the shape, so bottom = count. The test shape has diagonal shading (P or Q; checking shows P for leftward diagonals) and three arrows (W), giving PW—option C.

**Q75** : A

Top letters: X, Y, X, Z appear with outline / solid / outline / dashed, so top = line style. Bottom letters: J, K, L, J match the shapes (oval, triangle, triangle rotated, oval), so bottom = shape type. The test shape is an outline oval with a small line inside, matching X (outline) and J (oval-based shape), giving XJ—option A.

## Next steps

---

After marking, sit with your child and revisit every wrong answer, asking them to explain what they now see. For questions where they simply misread the pattern, a reminder to check all five boxes systematically will prevent repeats. For questions where the rule was invisible, work through two or three similar examples from a practice book until the pattern-type becomes familiar. **Non-verbal reasoning improves fastest through repeated, focused exposure** to each question type rather than endless mixed practice.

If your child scored above 70, consolidate by attempting a timed 11+ non-verbal paper from a different publisher (Bond, CGP, or CEM-style if your target schools use CEM) to ensure the skills transfer. If the score was below 55, spend a week on isolated practice for the weakest section before trying another full paper. Keep a log of question types missed; patterns in the log reveal exactly where to invest practice time.

---

For more free 11+ practice papers, past papers and online practice tests, visit [SATs-Papers.co.uk](https://www.SATs-Papers.co.uk).