

11+ Westmidlands VR, NVR & SR, English, Maths Tests

✓ 8 Full-Length papers

✓ 1,400+ Questions

✓ Detailed Answers

✓ Topic-wise Exercises



11+ Westmidlands

Paper 4 - Session 2

Instructions:

1. **Do not turn over this page** until instructed to do so.
2. This test contains four tests:
 - Test 1: **Verbal Reasoning (VR)**
 - Test 2: **Non-Verbal and Spatial Reasoning (NVR/SR)**
 - Test 3: **English**
 - Test 4: **Mathematics**
3. The front page of each test contains specific instructions. **Read them carefully** before starting.
4. Listen carefully to the instructions **read out by the invigilator**. They will guide you through the test process.
5. Check that your **name** and **date of birth** are correctly shown on the answer sheet.
6. In the answer sheet, **mark** the correct answer by **drawing a line with your pencil** through the small rectangular box beside it like this. 
7. You must make sure that you **mark your answer in the box** that has the same question number as the question you are doing in the paper.
8. If you make a mistake, rub out your mark as well as you can and mark your new answer.
9. The answer sheet will be marked by a computer.
10. You may **do any rough work** on the question paper.
11. This is a **multiple-choice test**. The complete test takes one hour, with approximately 15 minutes for each section.
12. You will need an HB pencil, an eraser and a pencil sharpener. You will not be allowed to use a ruler, a calculator, a protractor, or scrap paper.

to stop:

Do not turn the page until told to do so 

to go on:

Please go on to the next page >>>

or whether you have reached the end of the section/test.

END OF REASONING TEST

11+ Westmidlands

Session 2 - Test 1

Verbal Reasoning

Instructions:

1. Do not turn over this page until instructed to do so.
2. There are **four sub-tests**
3. Each sub-test begins with a practice section, where:
 - The **first question** is solved with a detailed solution.
 - The **remaining one question** is for you to attempt.
4. The practice section is followed by the main questions.
5. Each sub-test has **five main questions**.
6. Total time for the test is **15 minutes**.
7. Work quickly and carefully through the questions.
8. If you finish early, **go back and check** your work.
9. This is a **multiple-choice test**. Each question carries **1 mark**.



Verbal Reasoning Sub-test 1 Practice Section

Related Numbers

In these questions, find the number that completes the final set of numbers in the same way as the first two sets.

Example

7 [24] 3 10 [33] 3 5 [?] 4

A 17 **B** 20 **C** 24 **D** 23 **E** 25

The answer is **24**. In each set, the **middle number** is found by **multiplying** the **first number** by the **third number** and then adding the third number. For the first set: $7 \times 3 = 21$, then $21 + 3 = 24$. For the second set: $10 \times 3 = 30$, then $30 + 3 = 33$. For the third set: $5 \times 4 = 20$, then $20 + 4 = \mathbf{24}$.

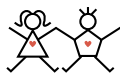
Now try this practice question and mark the correct option on the answer sheet.

P1

6 [31] 5 8 [49] 6 9 [?] 8

A 73 **B** 76 **C** 79 **D** 81 **E** 84

End of Verbal Reasoning Sub-test 1 Practice Section.



Verbal Reasoning Sub-test 1

*This section is **marked**.*

In these questions, find the number that completes the final set of numbers in the same way as the first two sets and mark the correct answer on the answer sheet.

1

9 [18] 6

25 [40] 8

4 [?] 4

A 6

B 8

C 9

D 10

E 12

2

10 [5] 5

13 [6] 7

19 [?] 9

A 4

B 7

C 10

D 16

E 20

3

4 [14] 5

6 [48] 9

8 [?] 7

A 37

B 40

C 42

D 45

E 50

4

3 [14] 10

5 [40] 25

7 [?] 16

A 18

B 20

C 24

D 30

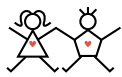
E 33



- 5 2 [21] 5 3 [33] 8 4 [?] 11
- A 21 B 33 C 41 D 45 E 57

End of Verbal Reasoning Sub-test 1





Verbal Reasoning Sub-test 2 Practice Section

Letter Connections

In these questions, find the next two letters in the pattern. Each pair follows a rule based on their position in the alphabet. Identify the pattern for both letters and choose the correct pair to complete the sequence.

Example

FP is to **HN** as **KT** is to [?]

A KV

B LR

C MR

D JS

E TR

*The answer is **MR**. The first letter in each pair follows an increasing pattern: $F \rightarrow H$ (moving forward by +2), and applying the same pattern, $K \rightarrow \mathbf{M}$ (moving forward by +2). The second letter follows a decreasing pattern: $P \rightarrow N$ (moving backward by -2), and applying the same pattern, $T \rightarrow \mathbf{R}$ (moving backward by -2). Thus, the next pair after KT is **MR**.*

Now try this practice question and mark the correct option on the answer sheet.

P2 **CE** is to **FJ** as **HM** is to [?]

A KQ

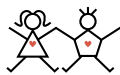
B JO

C KR

D MQ

E LR

End of Verbal Reasoning Sub-test 2 Practice Section.



Verbal Reasoning Sub-test 2

*This section is **marked**.*

***In these questions, find the next two letters in the pattern.
Each pair follows a rule based on their position in the alphabet.
Identify the pattern for both letters and choose the correct pair
to complete the sequence and mark the correct answer on the
answer sheet.***

6

MR is to **NI** as **PS** is to [?]

A DF

B KH

C KG

D KF

E AD

7

BY is to **CX** as **DW** is to [?]

A EV

B FW

C ES

D EU

E FV

8

AD is to **CG** as **FJ** is to [?]

A HN

B IM

C HM

D KM

E IL

9

DF is to **HJ** as **KM** is to [?]

A NQ

B OS

C PR

D OQ

E PT



10

AZ is to **DW** as **GT** is to [?]

A LQ

B KP

C BR

D LP

E JQ

End of Verbal Reasoning Sub-test 2



Verbal Reasoning Sub-test 3 Practice Section

Making Words - Missing letters

In these questions, a word in capitals is missing three consecutive letters. These letters form a correctly spelled word. Choose the option that completes the word correctly so the sentence makes sense.

Example

She had a CH [] [] [] ING smile.

A ARG **B** ARE **C** ARN **D** ART **E** ARM

*The answer is **ARM**. The missing three-letter word from **CH [] [] [] ING** is **ARM**. Completing the word as **CHARMING** forms a meaningful word that fits the sentence.*

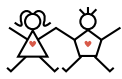
Now try this practice question and mark the correct option on the answer sheet.

P3

They tried to DI [] [] [] VER the treasure.

A SUC **B** SCR **C** SSO **D** SCO **E** SFO

End of Verbal Reasoning Sub-test 3 Practice Section.



Verbal Reasoning Sub-test 3

*This section is **marked**.*

In these questions, a word in capitals is missing three consecutive letters. These letters form a correctly spelled word. Choose the option that completes the word correctly so the sentence makes sense and mark the correct answer on the answer sheet.

11 The sun is bigger than the PL [] [] [] TS.
A ANA **B** ANI **C** ANE **D** ANT **E** AND

12 My TE [] [] [] ER helps me learn.
A ACH **B** ICH **C** ECH **D** OCH **E** UCH

13 She started a COL [] [] [] TION of stamps.
A LAC **B** LIS **C** LOS **D** LEL **E** LEC

14 He passed the EXA [] [] [] ATION.
A MAN **B** MEN **C** MON **D** MIN **E** MUN



15

We need to protect the ENVI [] [] [] MENT.

A RAN

B RON

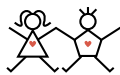
C RIN

D REN

E ROL

End of Verbal Reasoning Sub-test 3





Verbal Reasoning Sub-test 4 Practice Section

Superfluous Words

In these questions, rearrange the given words to form the longest possible sentence. Then, find the word that is not needed.

Example

birds sing trees the beautiful happily

A birds **B** sing **C** trees **D** the **E** beautiful

*The answer is **trees**. The longest sentence that can be made is '**The beautiful birds sing happily.**' The word '**trees**' is extra, as it does not fit into the sentence, making it the superfluous word.*

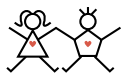
Now try this practice question and mark the correct option on the answer sheet.

P4

she walks school to quickly river

A she **B** river **C** school **D** to **E** quickly

End of Verbal Reasoning Subtest 4 Practice Section.



Verbal Reasoning Sub-test 4

*This section is **marked**.*

In these questions, rearrange the given words to form the longest possible sentence. Then, find the word that is not needed and mark the correct answer on the answer sheet.

16

she her completed dream carefully assignment

A she **B** assignment **C** her **D** dream **E** completed

17

despite challenges succeeded they ultimately rainbow

A despite **B** rainbow **C** succeeded **D** they **E** ultimately

18

they guitar before deadline the projects completed

A they **B** completed **C** guitar **D** before **E** deadline

19

she books reads table morning every

A she **B** books **C** reads **D** table **E** morning



20

she planted diamond roses beautiful those

A diamond **B** planted **C** those **D** beautiful **E** roses

End of Verbal Reasoning Sub-test 4

11+ West Midlands

Session 1 – Test 2

Non-Verbal & Spatial Reasoning

Instructions:

1. **Do not turn over this page** until instructed to do so.
2. There are **three sub-tests**.
3. Each sub-test begins with a **practice section**, where:
 - The **first question** is solved with a detailed solution.
 - The remaining **one question** is for you to attempt.
4. The practice section is followed by the main questions.
5. Each sub-test has **six main questions**.
6. Total time for the test is **15 minutes**.
7. Work quickly and carefully through the questions.
8. If you finish early, **go back and check** your work.
9. This is a **multiple-choice test**. Each question carries **1 mark**.

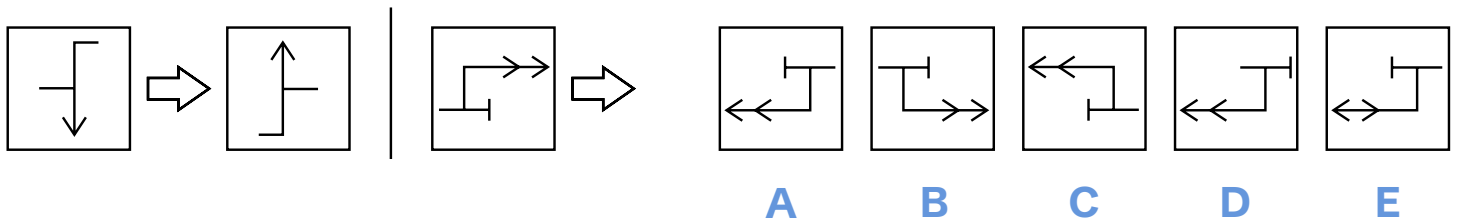


Non-Verbal Reasoning Sub-test 1 Practice Section

Analogy

On the left, two shapes are shown with an arrow between them, indicating a relationship. A third shape follows, with an arrow and five answer choices. Select the shape that pairs with the third shape in the same way as the first pair.

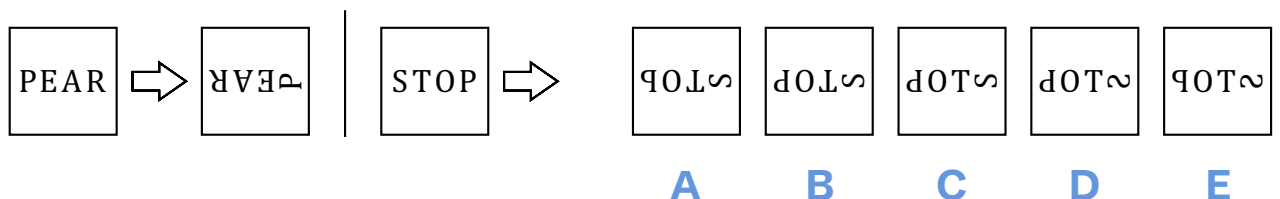
Example



*The correct answer is **A**. The figure gets vertically inverted and then horizontally inverted. In the first pair, the vertical line becomes horizontal and the downward arrow becomes upward. Applying the same dual transformation to the third figure, the horizontal line becomes vertical and the rightward arrows become leftward arrows. Option **A** perfectly matches this combined transformation, making it the correct choice.*

Now try this practice question and mark the correct option on the answer sheet.

P1



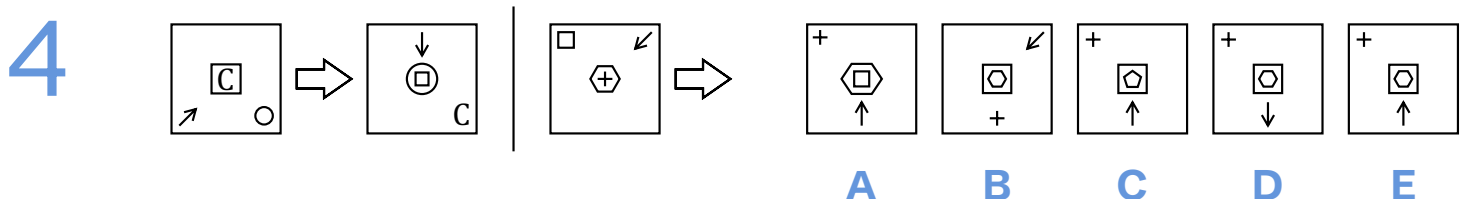
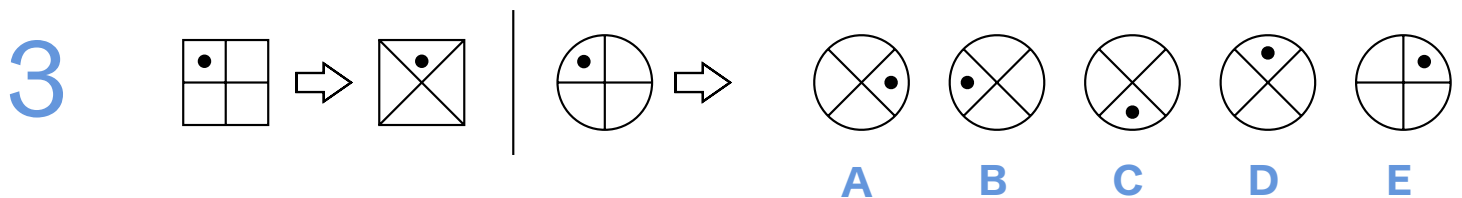
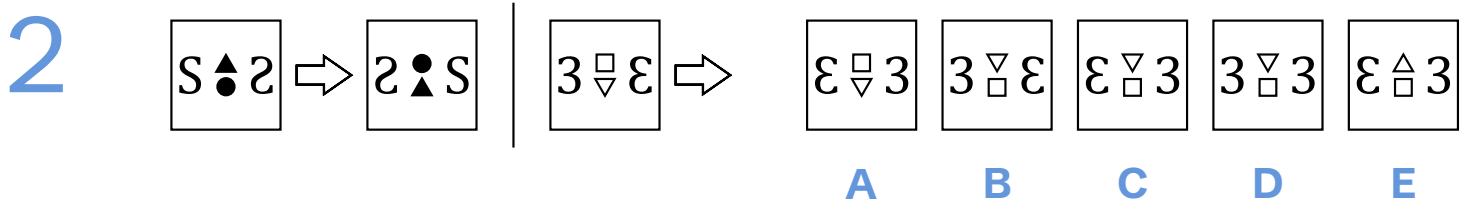
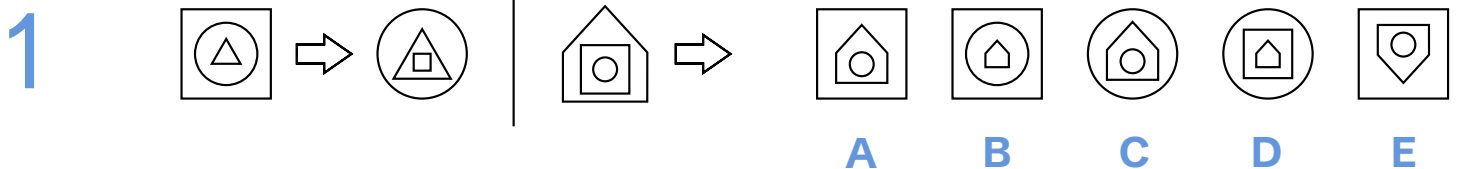
End of the Non-Verbal Reasoning Sub-test 1 Practice Section



Non-Verbal Reasoning Sub-test 1

This section is **marked**.

On the left, two shapes are shown with an arrow between them, indicating a relationship. A third shape follows, with an arrow and five answer choices. Select the shape that pairs with the third shape in the same way as the first pair and mark its letter on your answer sheet.





5

Diagram 1: A pyramid with 4 horizontal rows and 3 vertical columns. An arrow points to a set of symbols: $\times$, $\div$, $+$, $-$, $@$, © , and K .

Diagram 2: A rectangle with 4 vertical columns and 1 horizontal row. An arrow points to five options (A-E), each a 2x2 grid of symbols:

@	#
\$	R

A

#	#
%	R

B

@	@
@	@

C

\$	%
@	@

D

R	\$
%	%

E

6

Diagram 1: A square with vertices C (top-left), A (top-right), H (bottom-left), and L (bottom-right). A curved line starts at C, goes down to H, and then up to L. An arrow points to a square with vertices E (top-left), C (top-right), J (bottom-left), and N (bottom-right). A curved line starts at E, goes down to J, and then up to N.

Diagram 2: A square with vertices D (top-left), T (top-right), P (bottom-left), and S (bottom-right). A zigzag line starts at D, goes down to P, then up to T, then down to S, and finally up to D. An arrow points to five options (A-E), each a square with vertices G (top-left), W (top-right), S (bottom-left), and V (bottom-right). A zigzag line starts at G, goes down to S, then up to W, then down to V, and finally up to G.

A

B

C

D

E

End of Non-Verbal Reasoning Sub-test 1

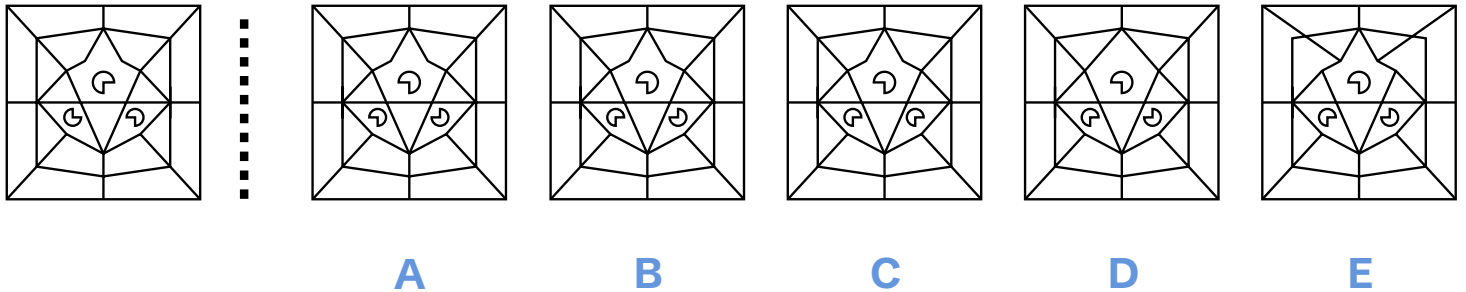


Non-Verbal Reasoning Sub-test 2 Practice Section

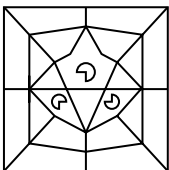
Reflection and Rotation

A shape is shown on the left. On the right, there are five answer choices. One of them is the correct mirror reflection of the shape on the left. Find the reflected shape.

Example



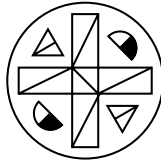
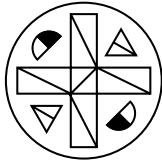
*The correct answer is **B**. The shape on the left is mirror reflected along the vertical axis. All elements and their positions are flipped accurately to their opposite sides while maintaining their relative distances and orientations. Option **B** perfectly matches this mirror reflection, showing all curved elements in their correctly reflected positions, making it the correct choice.*



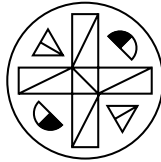


Now try this practice question and mark the correct option on the answer sheet.

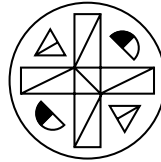
P2



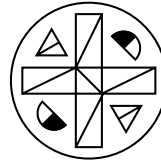
A



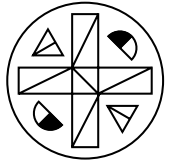
B



C



D



E

End of the Non-Verbal Reasoning Sub-test 2 Practice Section

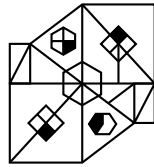
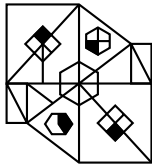


Non-Verbal Reasoning Sub-test 2

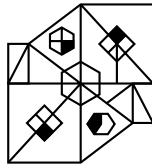
This section is **marked**.

A shape is shown on the left. On the right, there are five answer choices. One of them is the correct mirror reflection of the shape on the left. Find the reflected shape and mark its letter on your answer sheet.

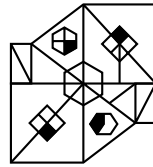
7



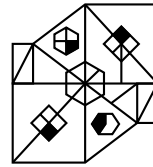
A



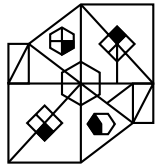
B



C

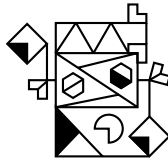
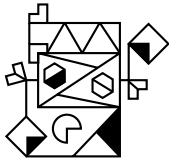


D

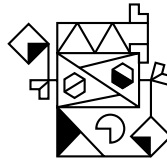


E

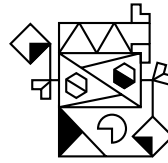
8



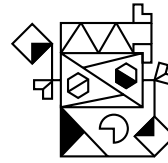
A



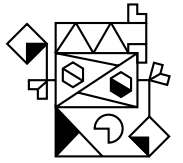
B



C

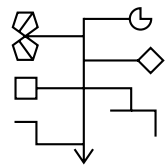
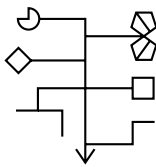


D

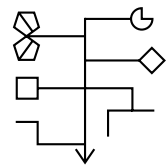


E

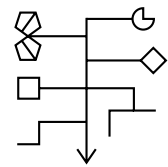
9



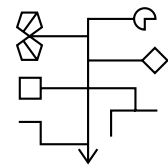
A



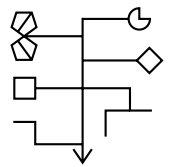
B



C



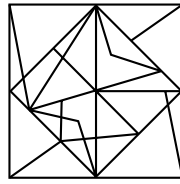
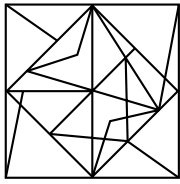
D



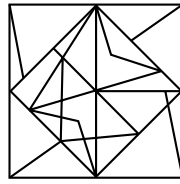
E



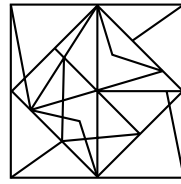
10



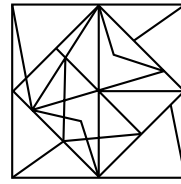
A



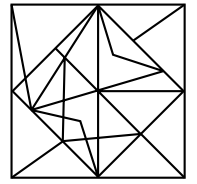
B



C

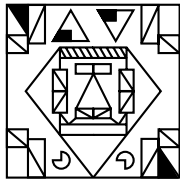
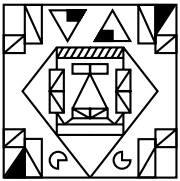


D

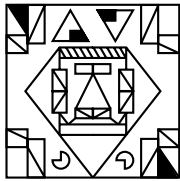


E

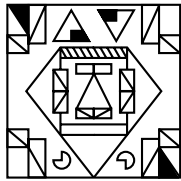
11



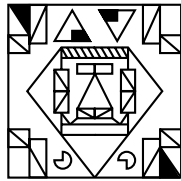
A



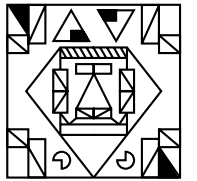
B



C

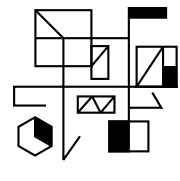
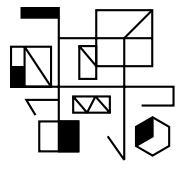


D

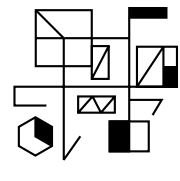


E

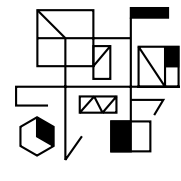
12



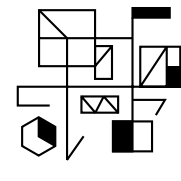
A



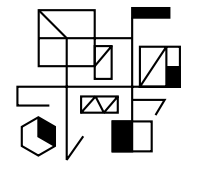
B



C



D



E

End of Non-Verbal Reasoning Sub-test 2

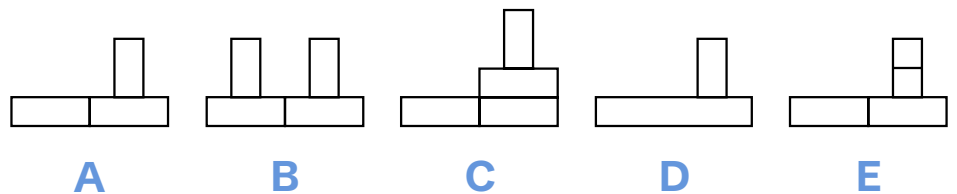
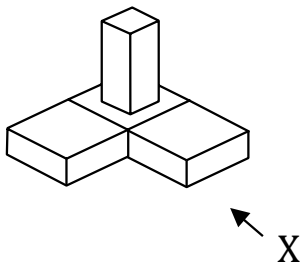


Spatial Reasoning Sub-test 3 Practice Section

3D Shapes

A 3D shape is shown on the left with a marked viewpoint (X). On the right, there are five 2D views. One of them represents the correct front view of the 3D shape when looked at from point X. Identify the correct 2D view.

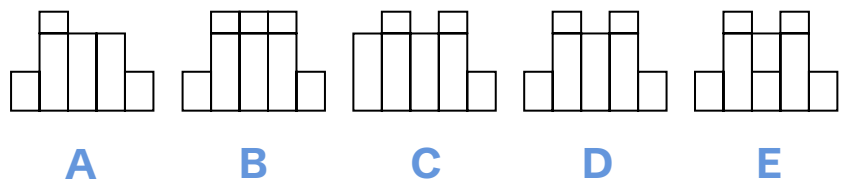
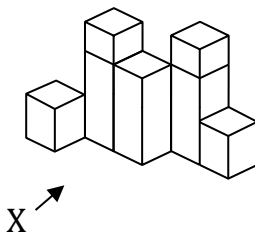
Example



The correct answer is **A**. While looking from point X, there are two horizontal lying cubical blocks visible at bottom and one vertically cubical block on the rightmost lying block visible.

Now try this practice question and mark the correct option on the answer sheet.

P3



End of the Spatial Reasoning Sub-test - 3 Practice Section

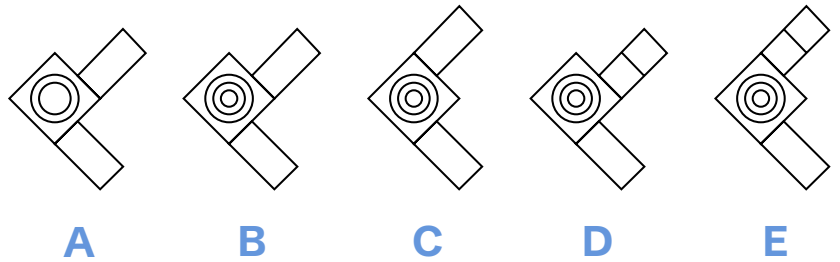
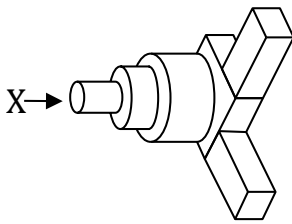


Spatial Reasoning Sub-test 3

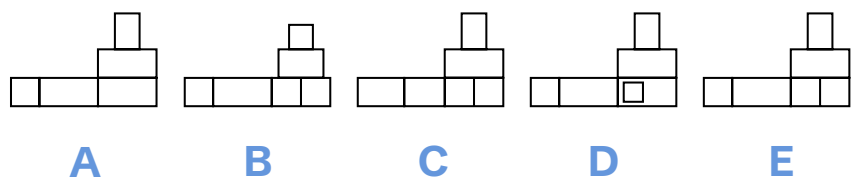
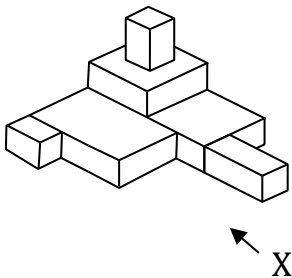
This section is **marked**.

A 3D shape is shown on the left with a marked viewpoint (X). On the right, there are five 2D views. One of them represents the correct front view of the 3D shape when looked at from point X. Identify the correct 2D view and mark its letter on your answer sheet.

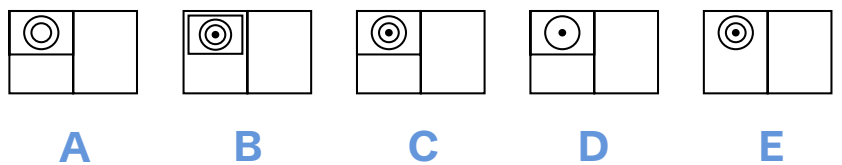
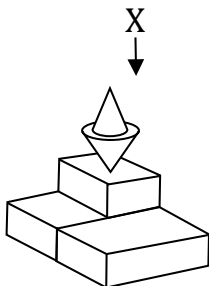
13



14

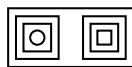
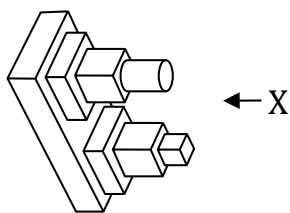


15

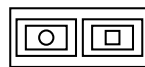




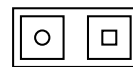
16



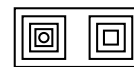
A



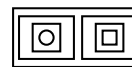
B



C

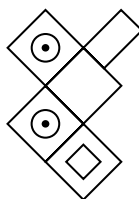
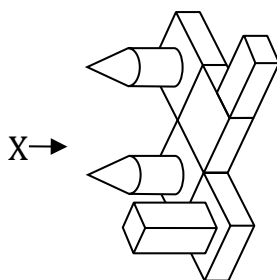


D

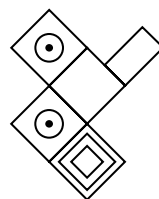


E

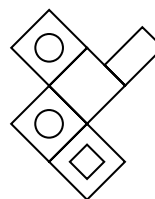
17



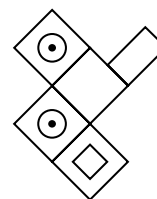
A



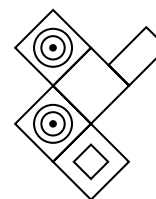
B



C

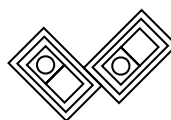
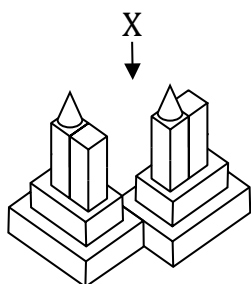


D

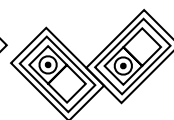


E

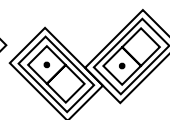
18



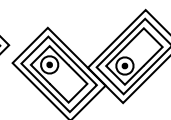
A



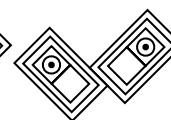
B



C



D



E

End of Spatial Reasoning Sub-test 3

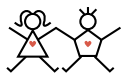
11+ West Midlands

Session 2 - Test 3

English

Instructions:

1. Do not turn over this page until instructed to do so.
2. This is a Reading Comprehension test.
3. The test begins with a practice section.
4. The practice section contains one passage with two practice questions.
5. The practice section is followed by the 10 main questions.
6. Total time for the test is 15 minutes.
7. Work quickly and carefully through the questions.
8. If you finish early, go back and check your work.
9. This is a multiple-choice test. Each question carries 1 mark.



English - Practice Section

Reading Comprehension

Read this passage carefully, then answer the questions that follow.

Ducks on a baseball pitch

1. Fans at a baseball game got a quacking surprise last weekend after a pair of ducks decided to land on the field during the event in Missouri.

The game, which was between minor league teams the Springfield Cardinals and the Northwest Arkansas Naturals, was delayed as attempts were made to remove

5. the ducks which decided to go for a wander around the field. The first bird flew away after being followed by members of the field crew, but the second one took a little more convincing.

It eventually took off flying above the field, only to make its way back onto the grass seconds later. But the field crew didn't give up. They were finally able to

10. escort the entertaining duck out of the stadium and their success was met with cheers from the crowds.



*Please answer these questions. (Look at the passage again if you need to.) You should choose the **best** answer and mark its letter on your answer sheet.*

P1 Which two teams were playing the baseball game described in the passage?

- A** Springfield Naturals and Arkansas Cardinals
- B** Springfield Cardinals and Northwest Arkansas Naturals
- C** Missouri Cardinals and Springfield Naturals
- D** Northwest Naturals and Springfield Ducks
- E** None of the above

P2 How is the second duck's behaviour portrayed in the passage?

- A** Aggressive and threatening
- B** Startled but quick to escape
- C** Stubborn and refusing to leave
- D** Playful and amusing to the crowd
- E** Confused and scared by the surroundings

This is the end of the English practice section.





English

*This section is **marked**.*

Reading Comprehension

Read this passage carefully, then answer the questions that follow.

Octopuses and fish hunt as a team, study finds

This article explains new discoveries on the hunting habits of octopuses and fish.

1. When you think of an octopus, you might picture it swimming alone underwater, however scientists think the animals could be more social than we imagine!

A new study has found that octopuses sometimes team up with groups of fish in order to hunt together. It's thought the arrangement helps both creatures - with the fish finding the prey, before calling on the octopus to capture it. Experts suggest that this joint effort leads to better success compared to either species acting alone.

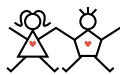
- 5.
10. Scientists from the Max Planck Institute of Animal Behaviour in Germany tracked both species during scuba diving expeditions in the Red Sea, which lies between Africa and Asia. They saw 13 hunting groups made up of one octopus (called a day octopus) and different species of fish, including gold-saddle goatfish and blacktip groupers.

15. It's not the first time experts have observed octopuses and fish hunting together, however researchers had previously thought that fish simply follow the octopus in order to catch any prey an octopus might miss. But this new study revealed that when hunting prey together, some octopus and fish species appear to share leadership - depending on the different types of decisions that need to be made.



For example, goatfish specialised in deciding where the hunting groups move - while the octopus decided whether and when the move would be made.

20. However, it's not always easy hunting together. Both sea creatures sometimes fall out with each other - fish move others out the way by swimming towards them quickly, and octopuses hit some fish to the outer areas of the group! Experts say the findings help better our understanding of the shared social life of the underwater animals.



*Please answer these questions. (Look at the passage again if you need to.)
You should choose the **best** answer and mark its letter on your answer sheet.*

1

What technique does the author use in the opening paragraph of the passage?

- A Historical reference
- B Statistical data
- C Rhetorical question
- D Personal anecdote
- E Challenging a common assumption

2

Where was the study on octopus and fish hunting behaviour conducted?

- A In the Mediterranean Sea
- B In the Red Sea
- C In the Pacific Ocean
- D In a laboratory aquarium
- E In the Atlantic Ocean

3

How many hunting groups did scientists observe during their study?

- A 2
- B 7
- C 13
- D 20
- E The passage doesn't specify



4

Which of the following fish species were observed hunting with octopuses?

Choose TWO.

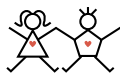
- 1 Clownfish
- 2 Gold-saddle goatfish
- 3 Bluefin trevally
- 4 Blacktip groupers
- 5 Parrotfish

- A** 1 and 3
- B** 1 and 5
- C** 2 and 4
- D** 3 and 4
- E** 2 and 5

5

According to the passage, what was the previous belief about fish following octopuses?

- A** That they were trying to eat the octopus
- B** That they were protecting the octopus from predators
- C** That they were learning hunting techniques from the octopus
- D** That they were catching prey the octopus might not spot
- E** That they were competing with the octopus for the same prey



6

Based on the passage, what can be inferred about the relationship between octopuses and fish in hunting groups?

- A** It is complex with both cooperation and occasional conflicts
- B** It is primarily beneficial to the fish but not to the octopus
- C** It is entirely cooperative with no conflicts
- D** It is a recent evolutionary development
- E** It is found only in certain geographical locations

7

How does the passage characterise octopuses in terms of social behaviour?

- A** As completely solitary creatures
- B** As more social than commonly believed
- C** As aggressive toward other marine species
- D** As dependent on fish for survival
- E** As territorial and protective of their hunting grounds

8

How is the role of the goatfish described in the hunting partnership?

- A** They confuse the prey so the octopus can strike
- B** They act as scouts, alerting others to danger
- C** They guard the octopus from potential threats
- D** They take the lead in capturing prey
- E** They lead the group by selecting the direction



9

In the phrase “when hunting prey together,” what grammatical function does “hunting” serve?

- A Noun
- B Gerund
- C Adjective
- D Adverb
- E Verb

10

What does the phrase “fall out” mean in the context of the passage?

- A Drop down
- B Disagree or have conflict
- C Lose balance
- D Separate into groups
- E Take turns

11+ West Midlands

Session 2 - Test 4

Maths

Instructions:

1. **Do not turn over this page** until instructed to do so.
2. The test begins with a practice section.
3. The practice section includes 3 questions.
4. The practice section is followed by the main questions.
5. Total time for the test is **15 minutes**.
6. Work quickly and carefully through the questions.
7. If you finish early, go back and check your work.
8. This is a **multiple-choice test**. Each question carries **1 mark**.



Maths: Practice Section (5 mins)

Try practice questions below. Work out the correct answer and mark it on the answer sheet.

P1

Starting with a 2-digit number, Emma applies the rule: Double the tens digit and subtract the unit's digit repeatedly until her result is a single-digit number. The single-digit result zero is not possible.

What will be the single-digit result for 74?

A 7

B 4

C 3

D 2

E 5

P2

Which is better value - a 300g jar of honey costing £4.2 or a 500g jar of honey costing £5.5?

A The 300g jar is better value by 10p per 100g

B The 300g jar is better value by 30p per 100g

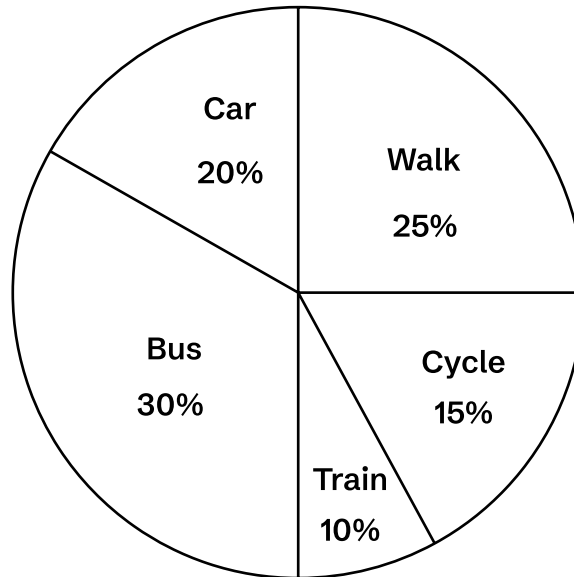
C The 500g jar is better value by 20p per 100g

D The 500g jar is better value by 30p per 100g

E Both jars offer exactly the same value

**P3**

The pie chart shows the modes of transport used by year 8 pupils to travel to school.



360 pupils were surveyed.

How many pupils travel to school by bus?

A 108

B 90

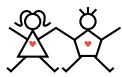
C 72

D 126

E 102

This is the end of the Maths practice section.





Maths

*This section is **marked**.*

1

Emma loves drawing and has been asked to create illustrations for local shops.

She has been hired to draw 12 shop signs during the school holidays.

Each sign takes her 3 days to complete. She plans a 5-day holiday to the seaside in the middle of her work. She will also miss 4 days because of a family wedding.

How many days will Emma's project take from start to finish?

A 49 days

B 45 days

C 43 days

D 42 days

E 38 days

2

How many letters in the word GEOMETRY have no lines of symmetry?

A 1

B 3

C 4

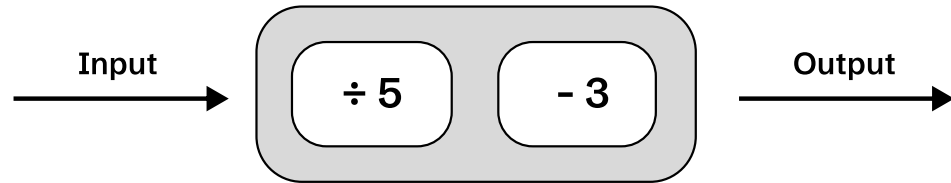
D 2

E 7



3

Olivia's function machine divides the input by 5 and then subtracts 3.



Olivia's output is 7.

What is the input?

A 40

B 45

C 50

D 55

E 60

4

This chart shows the number of goals scored by five football players in a season. Every  represents 3 goals.

Player	Number of Goals Scored
A	   
B	    
C	     
D	      
E	  

How many goals were scored overall by the five players?

A 60

B 75

C 66

D 69

E 56



5 Select three prime numbers that add up to another prime number.

- A** 2, 3, 5 **B** 3, 7, 11 **C** 3, 5, 11 **D** 5, 7, 13 **E** 3, 5, 7

6 The scale of a diagram is given by 1 : 8000. The length of a rectangular pond on the diagram is 3 cm and the width is 2 cm.

What would be the actual area of the pond?

- A** 38,400 sq m **B** 35,200 sq m **C** 40,800 sq m
D 42,000 sq m **E** 36,000 sq m

7 In a class of 60 pupils, 30% like football and 40% like cricket. One sixth of the pupils like both sports.

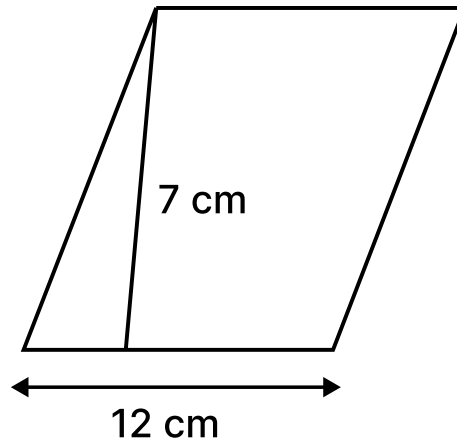
How many pupils do not like either of these sports?

- A** 24 **B** 26 **C** 28 **D** 30 **E** 32



8

Calculate the area of a parallelogram with a base of 12 cm and a height of 7 cm.

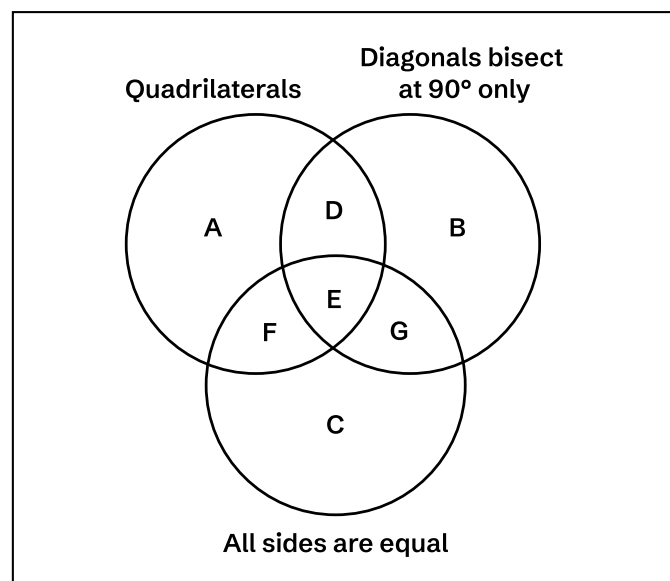


- A** 88 cm^2 **B** 76 cm^2 **C** 84 cm^2 **D** 82 cm^2 **E** 90 cm^2

9

Look at the Venn diagram.

Which of the following would have a rhombus in it?



- A** D **B** E **C** F **D** G **E** A + B + C



10

If $B = 5x^2 - 4y^2$, then work out the value of B , when $x = 4$ and $y = 2$.

A 77

B 97

C 87

D 64

E 57

11

Write down the smallest number which is not only a multiple of 3 but also a square number and an odd number.

A 9

B 25

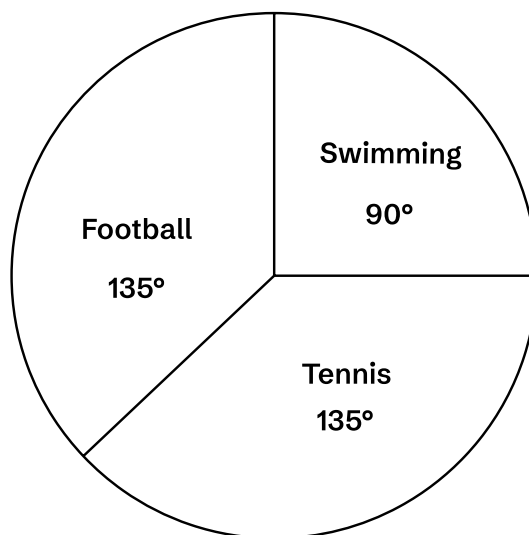
C 16

D 81

E 36

12

A class of 40 pupils were asked to pick their favourite sport from football, swimming or tennis. The results are shown in the pie chart below:



What fraction of the pupils chose tennis as their favourite sport?

A $\frac{1}{4}$ B $\frac{3}{8}$ C $\frac{5}{8}$ D $\frac{5}{12}$ E $\frac{2}{3}$



© piacademy.co.uk - All rights reserved

Visit piacademy.co.uk/11-plus-papers to check the 'answers'
