

# Non-verbal Reasoning

## An introduction to the tests

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This booklet is designed for children who are planning to take a school selection test. It explains briefly what the test is about, how different question types should be approached and how the answers should be recorded.

Samples are included of some of the types of questions that children may encounter in the real tests. These questions and their explanations should be worked through gradually to establish familiarity with the nature of non-verbal reasoning tests and how best to deal with their challenges.

A full-length practice test is provided to allow children the opportunity to sit an exam under timed conditions and to practise completing an answer sheet.

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# For parents

## About non-verbal reasoning selection tests

The test is designed to assess whether grammar school is a suitable option for your child. The tests have been designed and written by experts to test those skills proven to indicate potential for academic success. They are timed tests that are sat in a formal examination environment on a set date and consist of a series of multiple choice questions. Children read the questions in a test booklet and complete their answers on a separate answer sheet.

## How to use these materials

The aim of this booklet is to familiarise children with the idea of a non-verbal reasoning test and with the materials they will use on the day of the test. Children that are comfortable with the idea of taking a timed examination and with the format will be more able to focus their energies on the questions themselves.

The first part of this booklet looks at the general format of the test including instructions on how to mark answers. The next section provides some worked examples of non-verbal reasoning questions and it is important that your child has a good understanding of why the questions are answered in the way they are before moving on. The last part is a full-length practice test that should be taken in one sitting and timed appropriately. Answers and explanations are supplied at the end of the booklet.

# For pupils

Whenever you take a test it is important that you understand exactly what you have to do. Successful preparation for your examination doesn't just mean learning about the types of questions in the test. You also need to know the rules of the examination, how to behave, how to prepare yourself and how to correctly complete the tests so that the answers you submit are the ones you intended. You should also know what it feels like to have to do the test in a certain time and be comfortable with the idea of a test done by yourself.

The materials in this pack have been designed to help you to prepare for such tests. They will help you to become familiar with the kind of questions you will face, and the way you answer the questions. If you work through this booklet and try the full-length practice test, you should be thoroughly prepared for the real selection tests.

We will start by looking at some of the rules of the test and then at the way you answer the questions. The later parts of this booklet look in more detail at the types of questions you might face.

# Test instructions

**Some instructions will be spoken to you; others will be written in the test booklet. Try to remember the following:**

- Read the instructions on the front of the test booklet
- Listen carefully to invigilators – they are the adults who will guide you through the process of sitting the test. They will give you instructions about what to do
- There are some points in the test at which you will be asked to stop working and not turn the page. **In non-verbal reasoning tests, you will be given instructions and examples before each new section. Each section is timed separately.**
- At the bottom of each page in the test booklet are instructions telling you to:

**Stop...**

Do not turn over until you are told to do so



**... go on**

Please go on to the next page >>>

**... or that you have reached the end of the test.**

END OF NON-VERBAL REASONING TEST

# Test materials

It is vital that you know how to submit your answers for marking. This booklet gives you the opportunity to practise this.

On the day, you will have two things provided: a **test booklet**, containing the questions, and a **separate answer sheet**.

You will need to bring with you a **pencil**, a **spare pencil** and **an eraser**.


## The answer sheet

**Only the answers you fill in on the answer sheet will be marked.** The sheet is read by a special scanning machine so you need to mark it in a particular way in order for your responses to be clear. You can get an adult to check that you are doing it correctly.

The top of the answer sheet will show the name of the test and some information about you, including your name and date of birth.

- **Check that your name and date of birth are correct. Tell an invigilator if you think there is a mistake**

**NON-VERBAL REASONING TEST**



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Pupil's Name

School Name

Date of Test

**Please mark boxes with a thin horizontal line like this**

PUPIL NUMBER					
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

SCHOOL NUMBER					
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

DATE OF BIRTH		
Day	Month	Year
00	January	1997
01	February	1998
02	March	1999
03	April	2000
04	May	2001
05	June	2002
06	July	2003
07	August	2004
08	September	2005
09	October	2006
	November	2007
	December	2008

- If the boxes are blank, you will need to fill them out. Ask an invigilator to help.

The rest of the answer sheet contains spaces for you to submit your answers. Each question has its own box containing the answer options. The question number is in the top left hand corner. For example, question 1 might look like this:

1

A

B

C

D

E

- You answer each question by putting a thin horizontal line in the rectangle next to your answer, like this (you can practise this later on in this booklet):



- If you make a mistake, rub it out as completely as you can and put in your new answer.
- You must only use a pencil to mark the answer sheet.
- All the questions you do will be **multiple choice**.

*That means that you are given a range of answers to choose from. The answer options will be printed in the test booklet but you must submit your responses on the answer sheet.*

- You may need to fill in answers on **both sides** of the answer sheet.
- You must make sure that you mark your answers in the right **place on the answer sheet**. Mark your answer in the box that has the same number as the test question.
- You must make sure that all your answers are **recorded on the answer sheet before the end of the test**.

### **The test booklet:**

The test contains a number of different non-verbal reasoning question types. You need to try to answer all of the questions.

The test is divided into individual sections which are timed separately. Instructions are given before the start of each section along with an example question. You will also be asked to do some practice questions. These are not marked but help you understand the type of questions you are about to answer.

You can do rough work in the booklet if you need to, or on a separate piece of paper. But remember: the test booklet won't be marked. All your answers must go on the answer sheet.

# Non-verbal Reasoning Tests

## What will I be tested on?

The questions are tests of ability, not what you have learned elsewhere in school. They require skills that are needed to succeed in secondary education, including your ability to:

- understand and analyse tasks
- work quickly and carefully
- apply attention to detail
- solve problems using unfamiliar shapes and images
- acquire new ideas and concepts
- repeat a particular task at increasing levels of difficulty

## How long does the test last?

Non-verbal reasoning tests have individually timed sections. There are four sections in the North Yorkshire Non-verbal reasoning tests. Each lasts 10 minutes.

Instructions, as well as the example and practice questions are **not** part of the timing.

Remember, there will be times when you need to **sit and listen to instructions**, to make sure that your answer sheet has been handed in or to wait for other pupils in the room to finish

## What kind of questions will be asked?

The non-verbal reasoning test asks you questions involving the manipulation of shapes and images. There are different types of questions based on identifying relationships between things and then identifying a new example of that relationship. They are designed to test your ability to recognise detail and differences, separate the relevant from the irrelevant and to manipulate this information in your head.

In the next section, you will begin to familiarise yourself with some types of non-verbal reasoning questions, start to understand what they ask you to do and have a go yourself.

In the last section of this booklet, you will be able to sit a full-length practice test.

# Non-verbal Reasoning Questions

To do this section you will need:

- This booklet.
- The **familiarisation test answer sheet** (found towards the end of this booklet)
- Two **sharpened pencils**.
- An **eraser** to change answers if necessary.

The answers to the questions can be found on page 42.

There are many different types of non-verbal reasoning questions. To help you to understand the different types we have put them into three groups. The next section looks at example and practice questions from each group.

- Finding similarities and differences.
- Completing diagrams.
- Cracking codes.

**The questions shown here and in the practice test are not necessarily the same as the questions you will face in the real test. They have been chosen to let you practise the skills that you need.**

## General guidance:

- Read the instructions for each item type carefully. In the real test each question type has the same instructions as are used here.
- Make sure you are clear about what you are being asked to do before attempting the practice questions.
- Practice putting your answers on the separate answer sheet.

Finding similarities and differences: find the diagram like the first three

***On the left of each of the rows below there are three figures that are alike. On the right there are five more figures: find which of these is most like the three figures on the left and mark its letter on your answer sheet.***

**Example**



**Answer c**

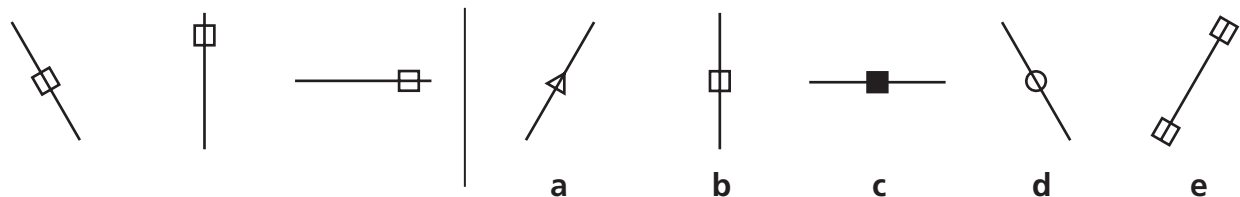
In this example, all the diagrams on the left are triangles – they all have three sides. Therefore, c is the correct answer as it is the only one of the five diagrams that is a triangle.

Now try these two practice questions and mark your answers on the answer sheet.

**P1**



**P2**



Other similar types of question to this include:

- Find the diagram like the first two

These questions are like the ones you have just attempted but instead of three figures on the left of the line, there are two.

- Find the odd one out

In these questions, you are shown a row of five figures. You have to find the figure that is most unlike the other four shapes.

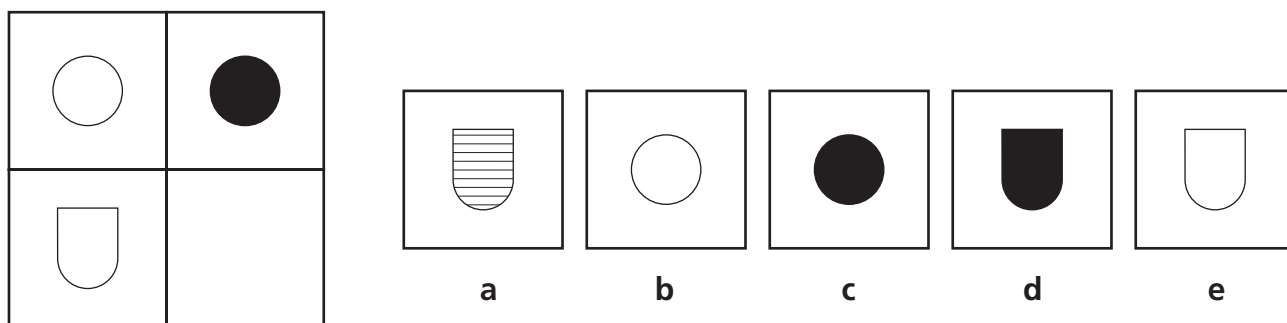
You will have the chance to try these types of questions in the practice test at the end of the booklet



## Completing diagrams: complete the grid

*In the big square on the left of each line below one of the small squares has been left empty. One of the five figures on the right should fill the empty square. Find this figure and mark its letter on your answer sheet.*

### Example

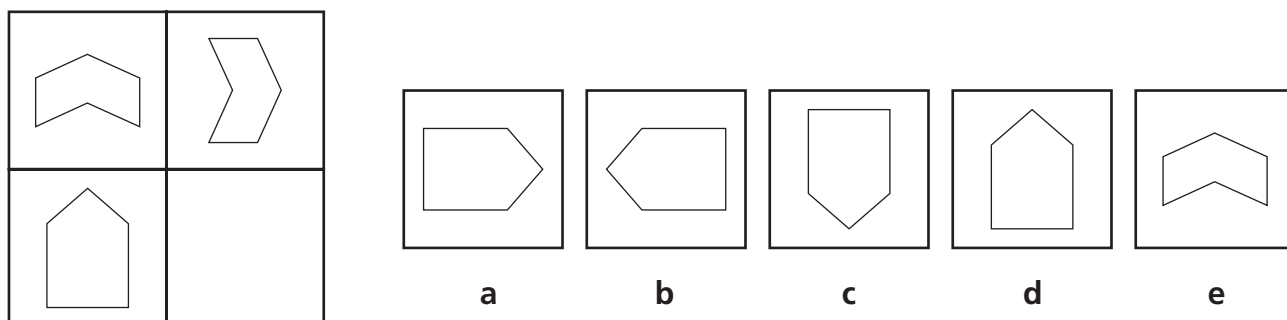


**Answer      d**

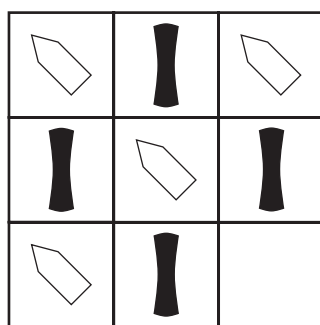
In the example above the two shapes at the top are both the same, except that the circle on the left is white and the one on the right is black. In the bottom left, there is a white shield shape. To complete the pattern, the missing shape has to be a shield that is shaded black, so the correct answer must be **d**.

Now try these two practice questions and mark your answers on the answer sheet.

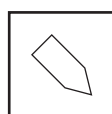
## P3



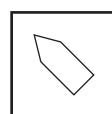
# P4



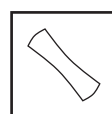
a



b



c



d



e

Other similar types of question to this include:

- Complete the series

In these questions, five squares are arranged in order, each containing a shape or figure. One of the squares is left empty. You have to find the right square to take the place of the empty square.

- Complete the pair

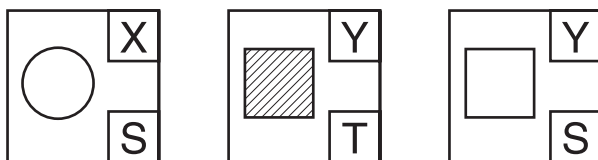
In these questions, you are shown two shapes with an arrow between them. The arrow signifies a change or other relationship between the shapes. You have to decide what this relationship is how the second shape is related to the first. You are then shown a third shape. You have to decide which of five shapes goes with this third shape to make a pair like the first two shapes. These questions are also known as analogies.

You will have the chance to try these types of questions in the practice test at the end of the booklet.

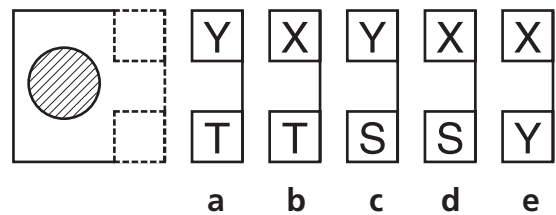
## Cracking codes: crack the horizontal code

***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. Mark its letter on your answer sheet.***

## Example



## TEST SHAPE



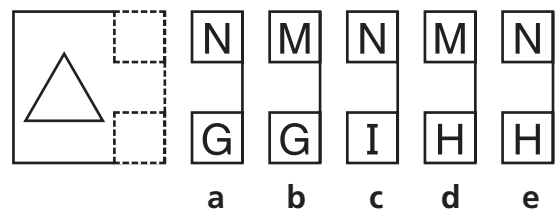
**Answer**      **b**

In the example above, two of the top letters are the same (Y) and one is different (X). Two of the three bottom letters are also the same (S) and one is different (T). The top letters will therefore describe a feature that is shared between the second and third diagrams but is different from the first – in this example this is the shape, as the first shape is a circle and the second and third are squares.

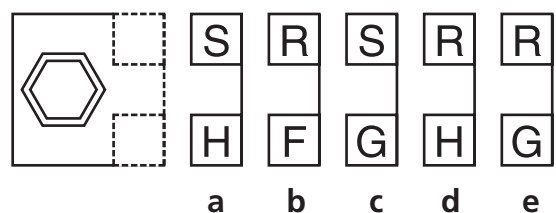
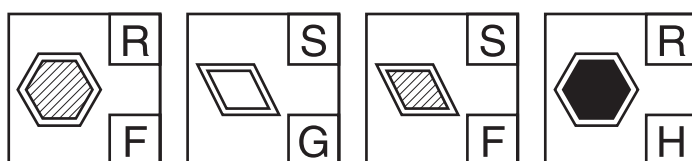
The bottom letters must describe a feature that is common to the first and third diagrams, but different from the second. In this case the letters must be related to the shading, as the first and third shapes are not shaded whereas the middle shape is shaded with diagonal lines. The test shape is a shaded circle. The code for circle is 'X' and for a shaded shape is 'T'. The answer is therefore **b**.

Now try these two practice questions and mark your answers on the answer sheet.

## P5



## P6



Other similar types of question to this include:

- Crack the vertical code

Like the questions above, these questions ask you to work out a code relating shapes to letters.

You will have the chance to try these types of questions in the practice test at the end of the booklet.

# Practice Test

The following test is designed to help you prepare for a full-length test sat under timed conditions.

## Information for pupils:

- Before sitting the test, make sure you have a quiet place to work and a clock to monitor the time.
- The test lasts for 40 minutes but each section is individually timed. The whole process will take around 50 minutes.
- Some of the items are the same as those you worked through in this booklet. Others will be different. Make sure you read the instructions for each question carefully.
- There may be other types of question in the real test. Some will also be the same as are in this practice test.
- Not all the questions are as difficult as those included in the real selection tests. Therefore the score obtained on this test will not necessarily reflect your score on the actual selection tests.
- Each section starts with an example question showing the correct answer.

## Information for parents:

- Non-verbal tests are divided into sections, each timed separately. Each section lasts for ten minutes but do not start timing until your child has read all the instructions and/or filled in all the details at the top of their Answer Sheet.
- The answers can be found on page 44.

## Different ways to sit the test:

The test has four separate sections. Each section is preceded by instructions on how to answer the questions, one or two examples and some practice questions (you will find that some are the same as the practice questions above). This is then followed by 20 test questions.

In the actual exam, the invigilator will read these instructions aloud to candidates.

There are three main ways you can do this Non-Verbal Reasoning test at home:

1. a. Turn to Section 1 of the test booklet with your child. Read through the instructions at the top together. Then ask your child to do the practice questions, giving them the answers to these when they have finished (see Answer Key below). Finally, time them for **ten minutes** on the following 20 questions.

- b. After ten minutes have elapsed, stop your child, unless they have not finished. If this is the case, draw a line underneath the question they are on, or draw a ring round its number, and then let them carry on until they have completed the section. When you mark the test you will be able to see how many questions your child got right in the allocated time and how many questions overall. This will give you a good indication of whether they need to develop their speed and/or work more accurately.

Further guidance on developing your child's speed and accuracy is provided in GL Assessment's *Official Parents' Guide to the 11+*, available from high street retailers and online.

- c. Repeat this procedure for the other four sections.

OR

- 2. a. Ask your child to read through the example in the first section by themselves and do the practice questions, then give them the answers (see Answer Key below). They should tell you when they are ready to begin the timed section. You should then time them for ten minutes on the following 20 questions.
- b. As above for option 1.
- c. As above for option 1.

OR

- 3. a. You can simply give the test to your child and ask them to read through and complete it on their own, with no help, involvement or timing on your part. In this case you will not be able to give them the answers to the practice questions until they have finished the whole test. You should tell them to ignore the instructions stating 'Wait until you are told to go on'.

Please note, if you want your child to experience the test as closely as possible to the real test, then you should choose **Option 1**.

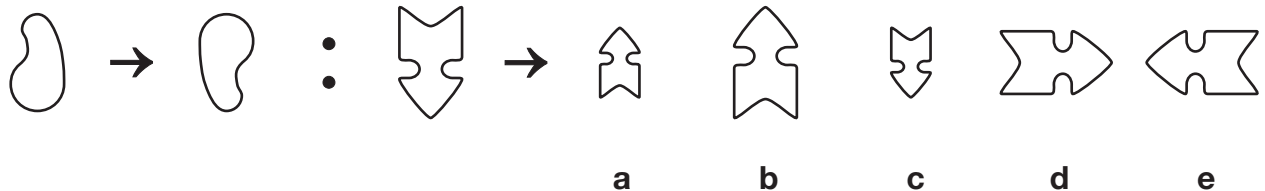
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# Section 1

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. The correct answer has been marked on your answer sheet.

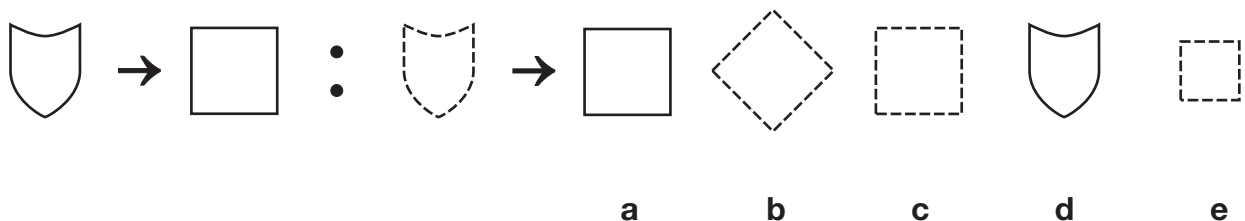
## Example



Answer: b

Now do the two practice questions below. **Mark the correct answers on your answer sheet.**

## P1



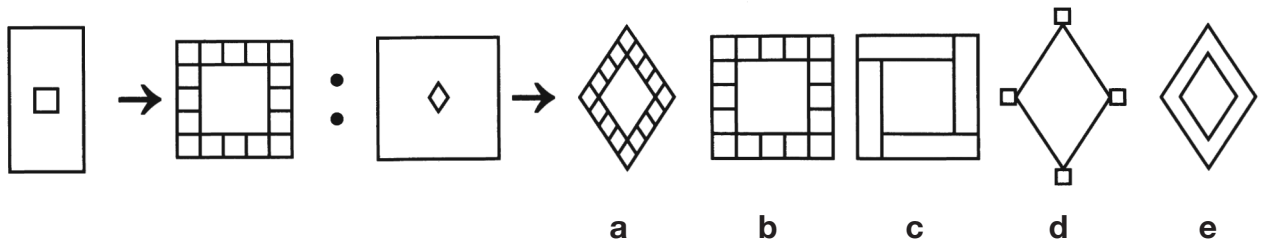
## P2



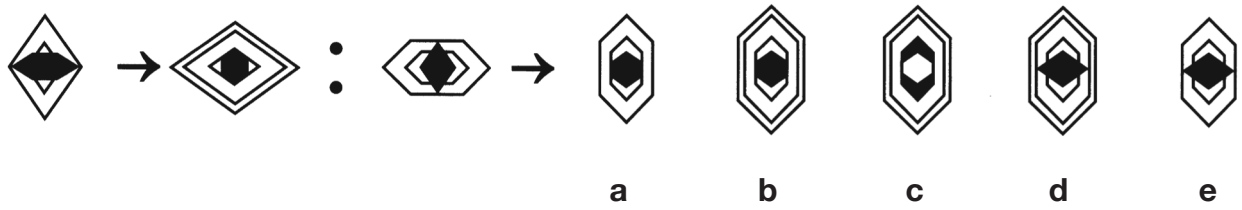
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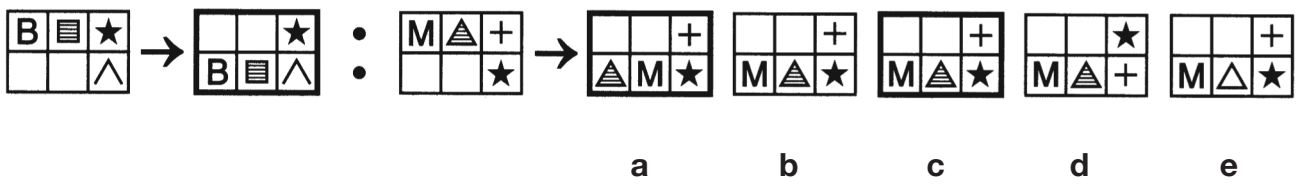
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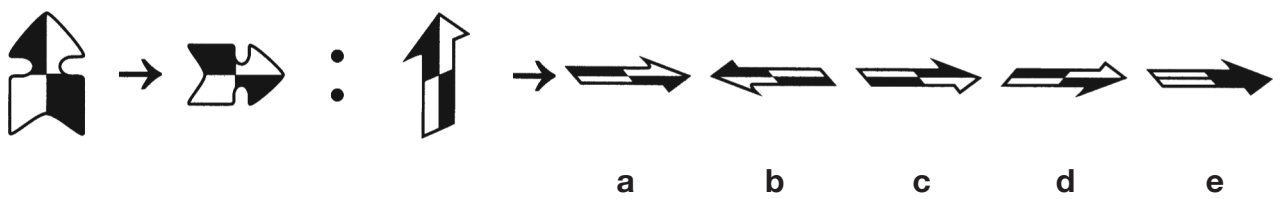
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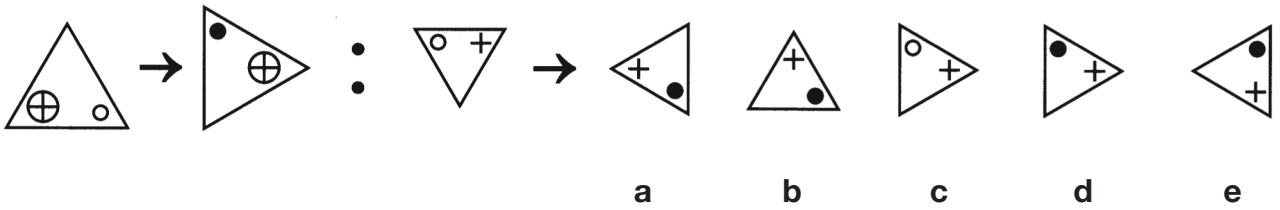


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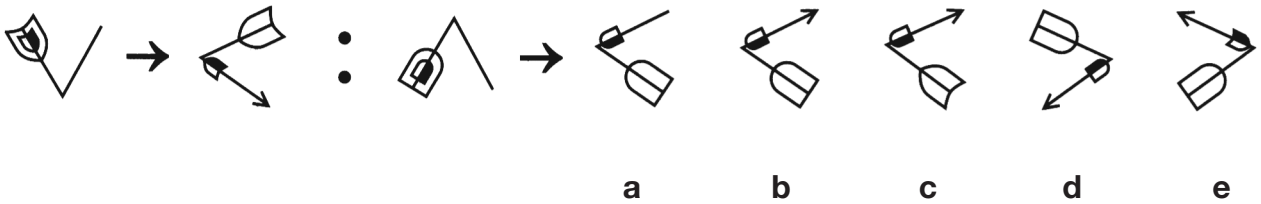




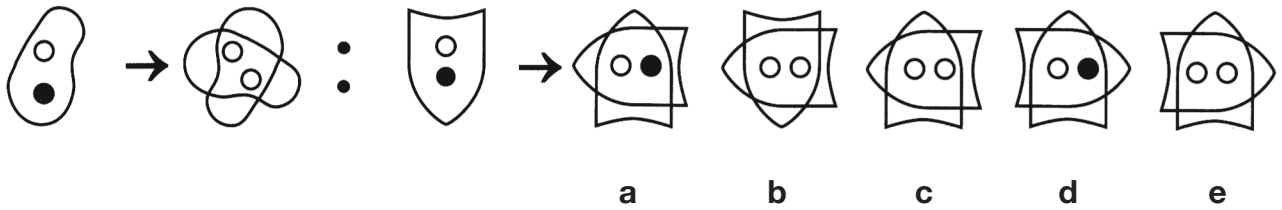
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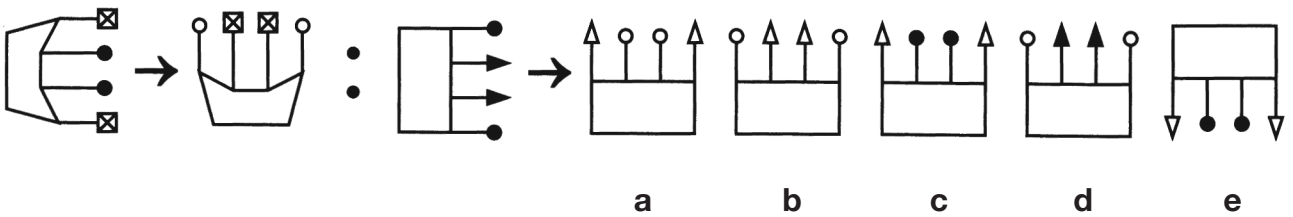
7



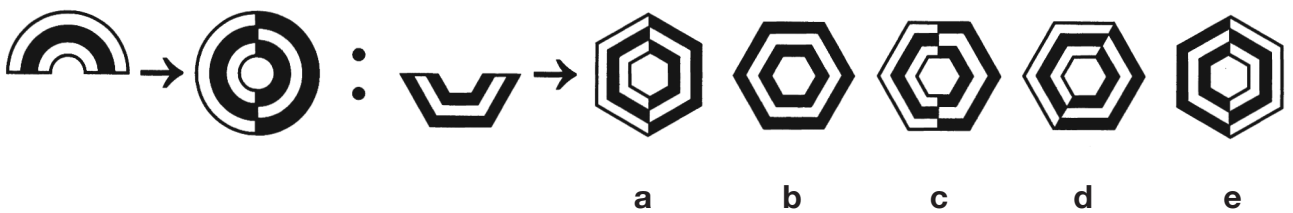
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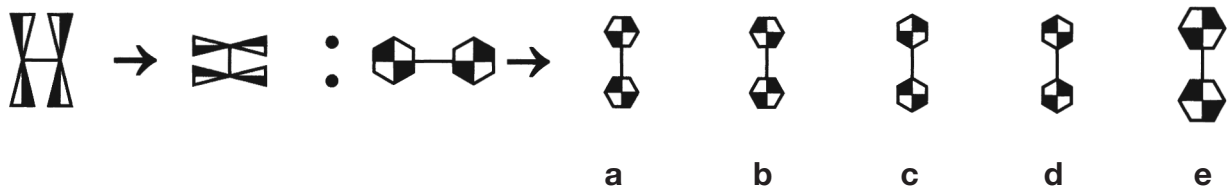
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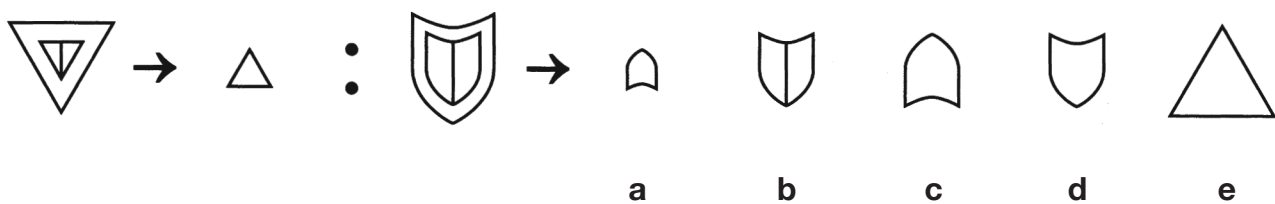
10



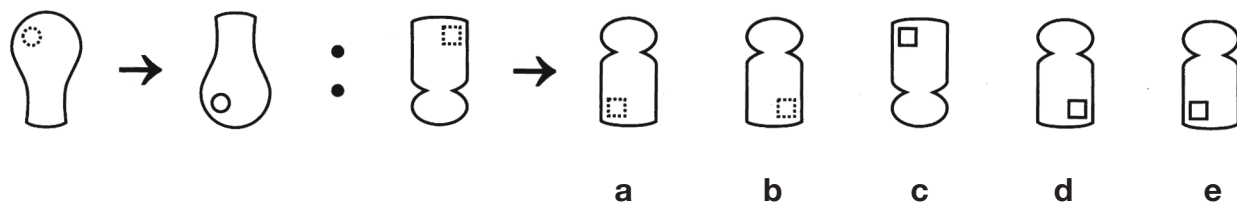
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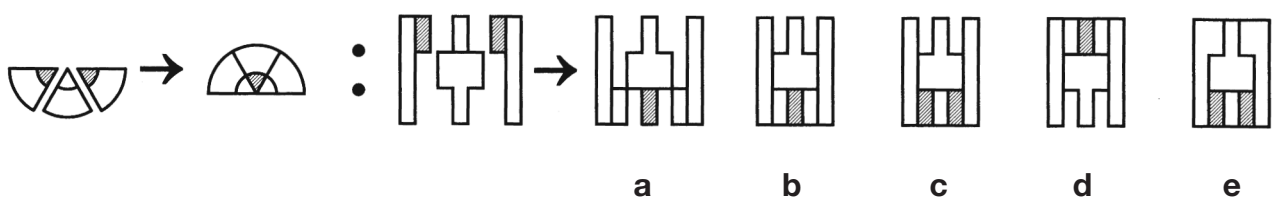
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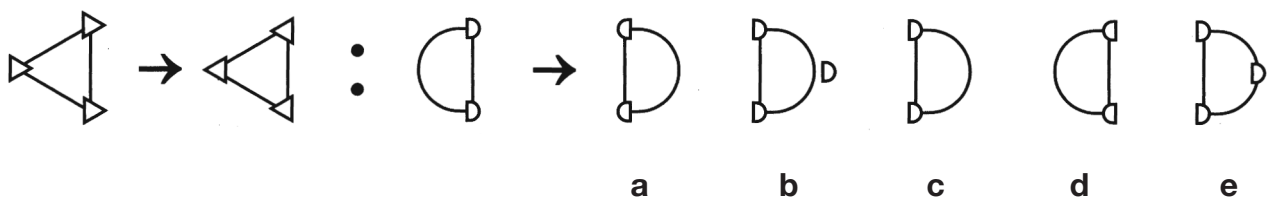
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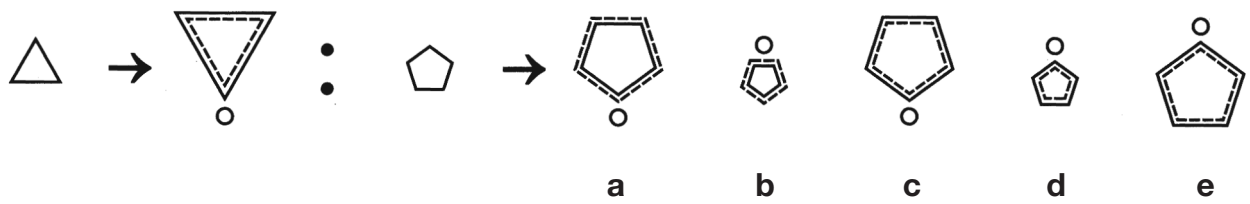
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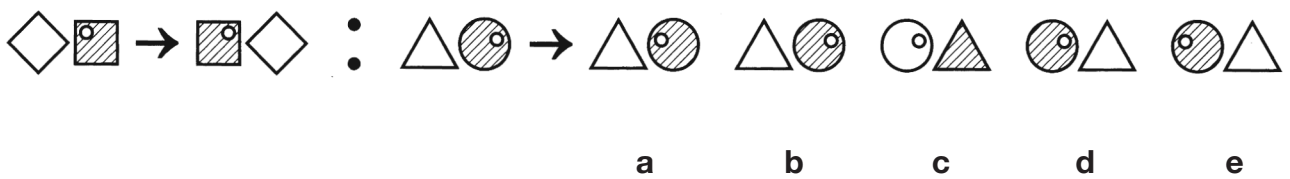
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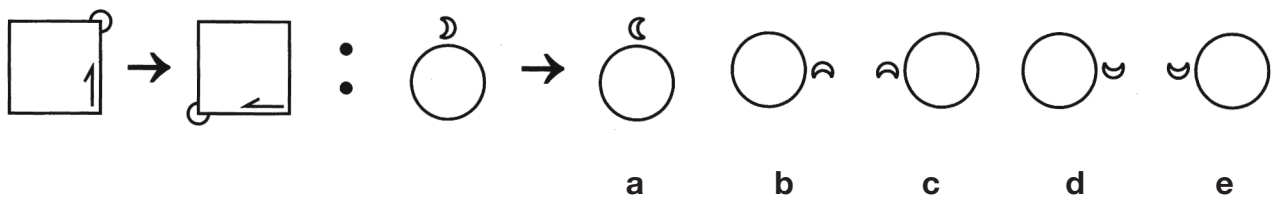
16



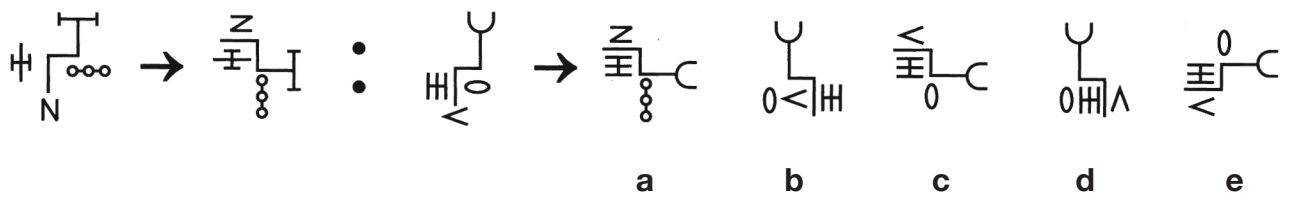
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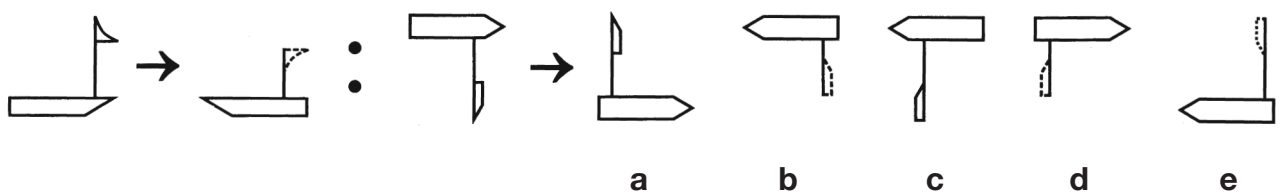
18



19



20





# Section 2

To answer these questions you have to work out a code. On the left are some shapes and the codes that go with them. You must decide how the code 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**.

## Example



SX



SY



TZ

Test shape



SZ

TY

TX

ST

TZ

a

b

c

d

e

Answer: a

Decide what the code letters mean. The **first letter** is the same for both shaded shapes, so S must be the code for shading and T the code for white. The **second letter** is different for each shape, so X, Y and Z must be the codes for arrow, square and diamond. Therefore the test shape must have an S code for shading and a Z code for diamond. So the answer is SZ and a has been marked on the answer sheet. Now do the two practice questions below and mark your answers on the answer sheet. **Remember there is a new code for each question.**

## P1



XJ



XK



YJ



XK

XJ

YK

XY

YJ

a

b

c

d

e

## P2



LP



MQ



MP



LM

LP

MQ

LQ

MP

a























b

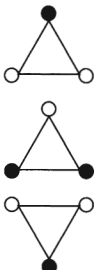

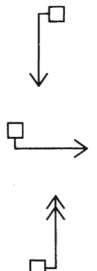



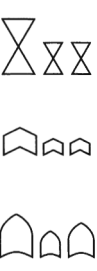



c

d

e

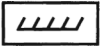

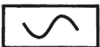





















21	 FJ  GJ  FK  GL	 FL GL FK GJ GK a b c d e
22	 JLF  JMH  KMF	 KLF JLM JMH KMH KLH a b c d e
23	 KO  LP  MP  NO	 KP LO NP LP MO a b c d e
24	 XFJ  YGJ  XGK	 YGK XGK YFK XGJ YFJ a b c d e
25	 GK  HL  HM	 GM GL HK GH KM a b c d e

26	 <div>FR</div> <div>GR</div> <div>FS</div>	 <div>FS</div> <div>FR</div> <div>RS</div> <div>GR</div> <div>GS</div> <div>a</div> <div>b</div> <div>c</div> <div>d</div> <div>e</div>
27	 <div>FK</div> <div>FL</div> <div>GM</div>	 <div>FM</div> <div>GM</div> <div>GK</div> <div>GL</div> <div>FG</div> <div>a</div> <div>b</div> <div>c</div> <div>d</div> <div>e</div>
28	 <div>XM</div> <div>YN</div> <div>ZM</div>	 <div>YM</div> <div>XN</div> <div>ZM</div> <div>YZ</div> <div>ZN</div> <div>a</div> <div>b</div> <div>c</div> <div>d</div> <div>e</div>
29	 <div>JL</div> <div>JM</div> <div>KN</div>	 <div>JL</div> <div>KM</div> <div>JN</div> <div>KL</div> <div>JK</div> <div>a</div> <div>b</div> <div>c</div> <div>d</div> <div>e</div>
30	 <div>VS</div> <div>WT</div> <div>XS</div>	 <div>XS</div> <div>XT</div> <div>WT</div> <div>WS</div> <div>VT</div> <div>a</div> <div>b</div> <div>c</div> <div>d</div> <div>e</div>

31	 XLR  YMS  XNR  XOS	 YNS   YMR   XMS   XNR   XMR a                      b                      c                      d                      e
32	 MW  MW  LW  LX	 MX   LW   MW   LX   WX a                      b                      c                      d                      e
33	 GO  HO  IP	 HP   IO   GO   HO   GP a                      b                      c                      d                      e
34	 WJ  XK  XL	 WL   XJ   WK   XL   WJ a                      b                      c                      d                      e
35	 WG  WH  XI  XG	 XH   XG   WG   WI   WH a                      b                      c                      d                      e



<p>36</p> <div>  HQ         </div> <div>  IR         </div> <div>  JQ         </div>	<div>  </div> <div>           HR      JR      IQ      JQ      IR         </div> <div>           a      b      c      d      e         </div>
<p>37</p> <div>  FM         </div> <div>  GN         </div> <div>  HO         </div> <div>  IM         </div>	<div>  </div> <div>           IN      GO      IO      FN      HN         </div> <div>           a      b      c      d      e         </div>
<p>38</p> <div>  NPS         </div> <div>  OPT         </div> <div>  OQS         </div>	<div>  </div> <div>           OPS      OQT      NQS      NPS      NQT         </div> <div>           a      b      c      d      e         </div>
<p>39</p> <div>  PT         </div> <div>  QU         </div> <div>  RV         </div> <div>  RW         </div>	<div>  </div> <div>           PV      PW      RT      RV      QV         </div> <div>           a      b      c      d      e         </div>
<p>40</p> <div>  MRX         </div> <div>  NSX         </div> <div>  NRY         </div>	<div>  </div> <div>           NSY      NRX      MSY      MRY      MSX         </div> <div>           a      b      c      d      e         </div>

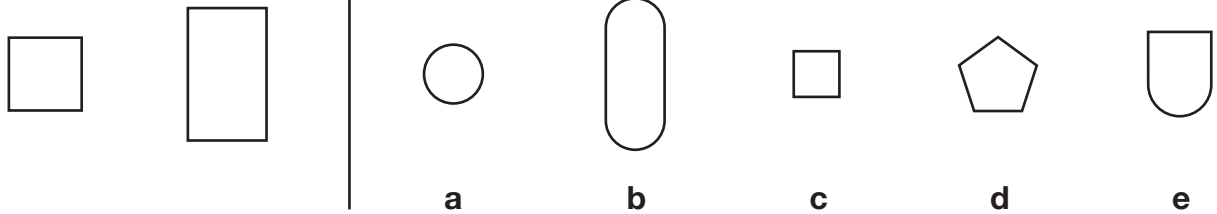




# Section 3

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.

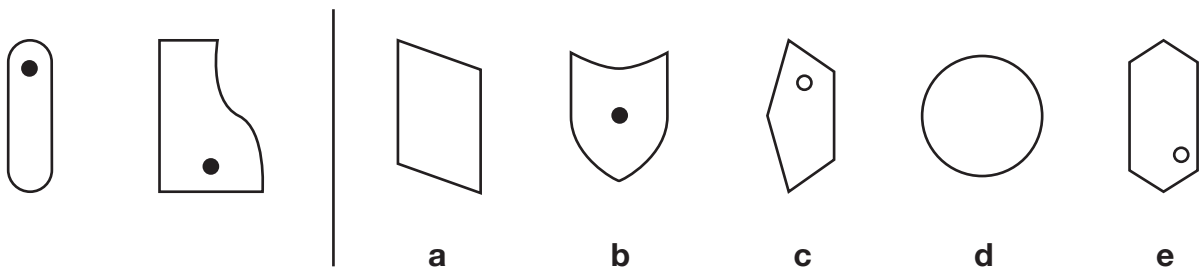
**Example**



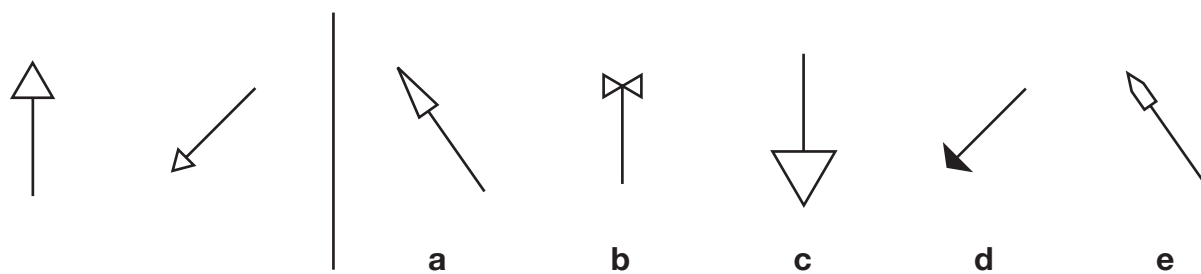
**Answer: c**

Now do the two practice questions below. **Mark the correct answers on your answer sheet.**

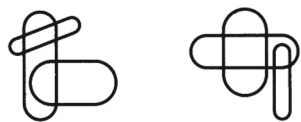
P1



P2



41



a



b



c



d



e

42



a



b



c

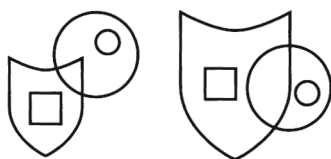


d



e

43



a



b



c

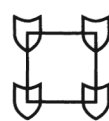
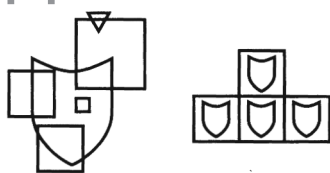


d

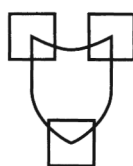


e

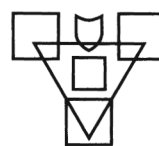
44



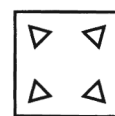
a



b



c

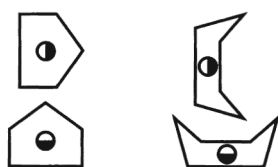


d



e

45



a



b



c

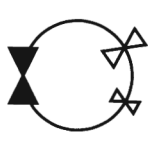
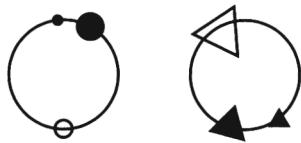


d

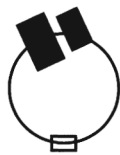


e

46



a



b



c

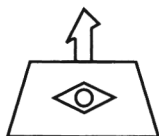
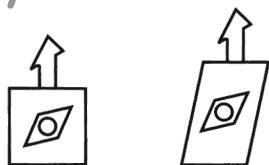


d

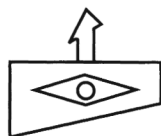


e

47



a



b



c

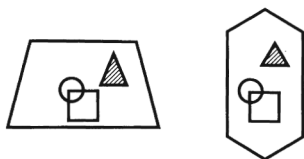


d



e

48



a



b



c

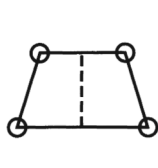
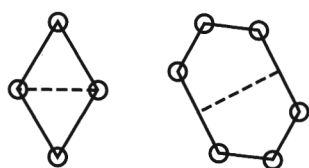


d

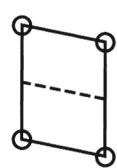


e

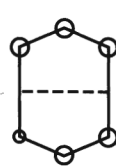
49



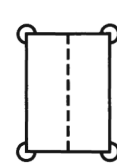
a



b



c

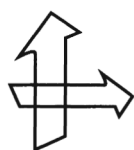
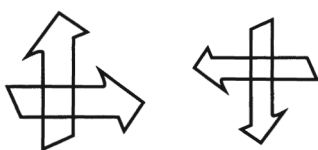


d

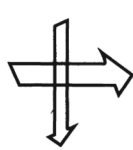


e

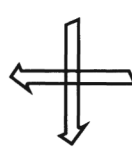
50



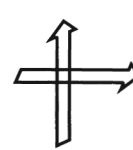
a



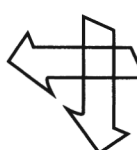
b



c

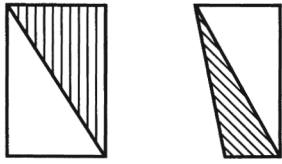


d



e

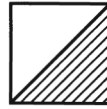
51



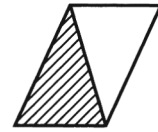
a



b



c

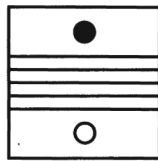


d



e

52



a



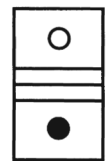
b



c



d

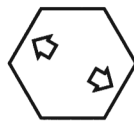


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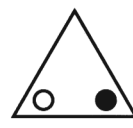
53



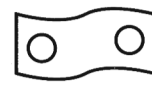
a



b



c

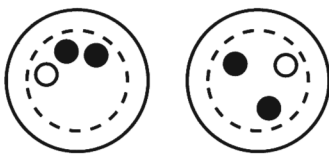


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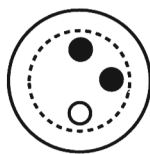


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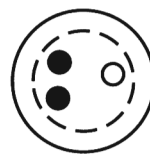
54



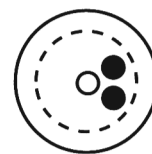
a



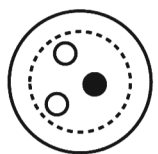
b



c

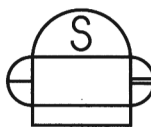
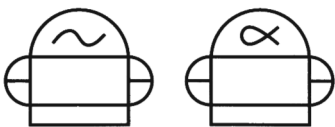


d



e

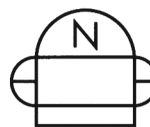
55



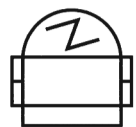
a



b



c

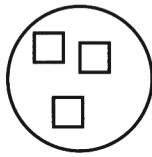
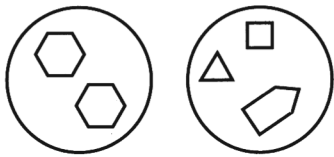


d

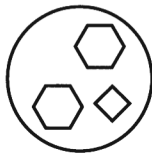


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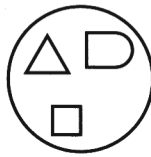
56



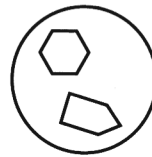
a



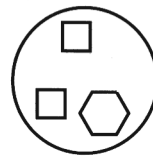
b



c



d



e

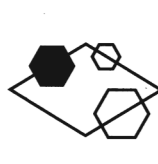
57



a



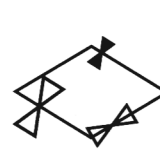
b



c

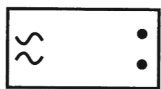
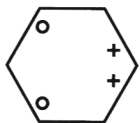


d



e

58



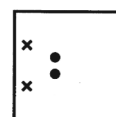
a



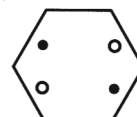
b



c

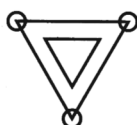


d



e

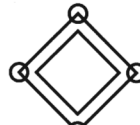
59



a



b



c

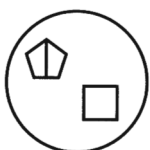


d



e

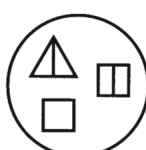
60



a



b



c



d



e



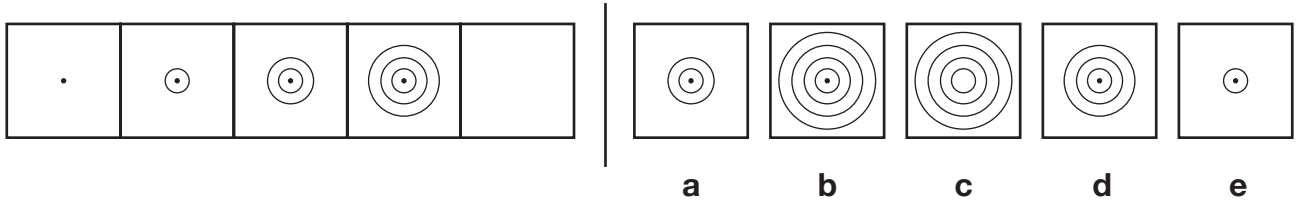




# Section 4

To 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.

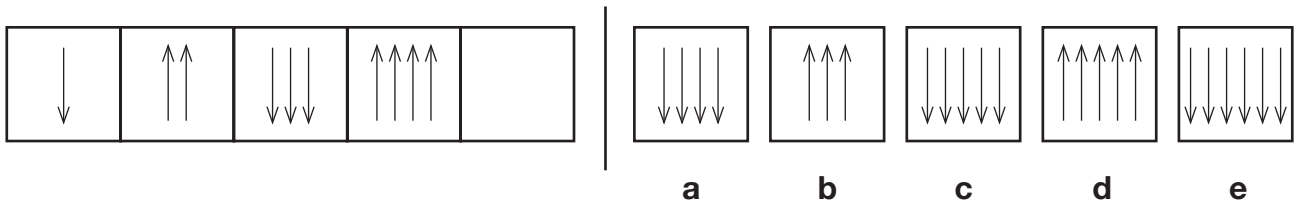
## Example



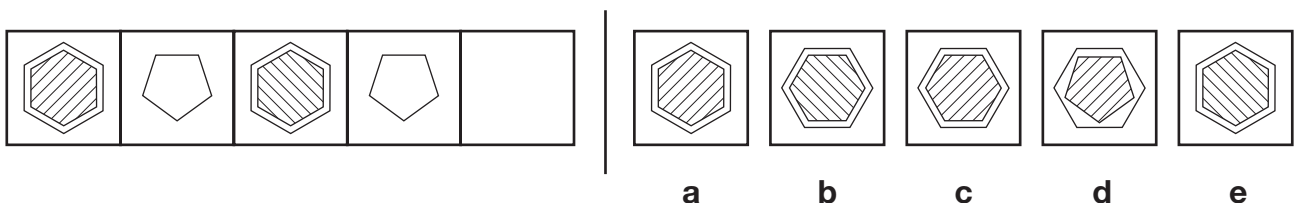
Answer: b

Now do the two practice questions below. **Mark the correct answers on your answer sheet.**

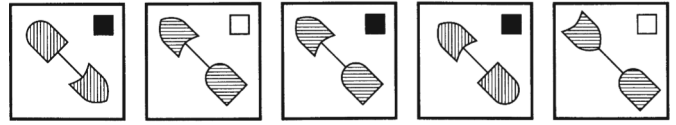
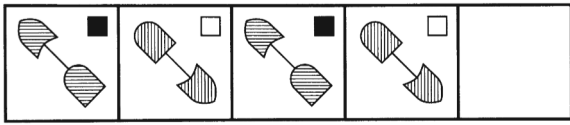
## P1



## P2



61



a

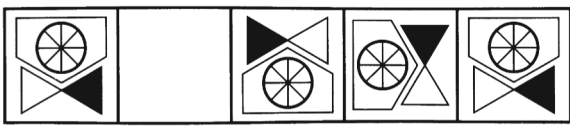
b

c

d

e

62



a

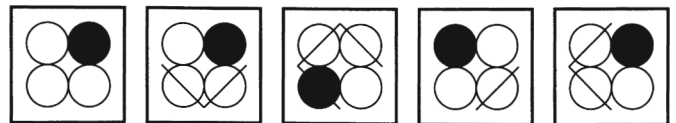
b

c

d

e

63



a

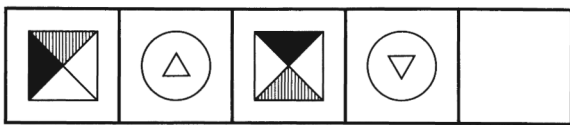
b

c

d

e

64



a

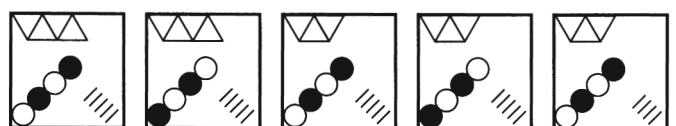
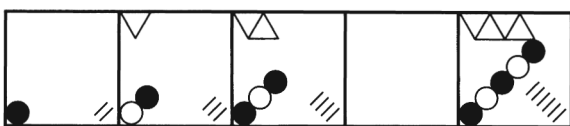
b

c

d

e

65



a

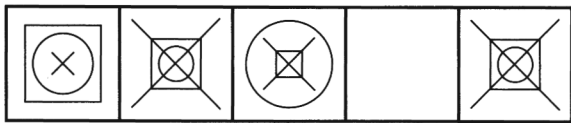
b

c

d

e

66



a

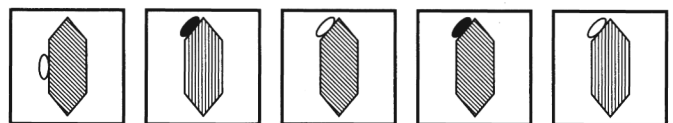
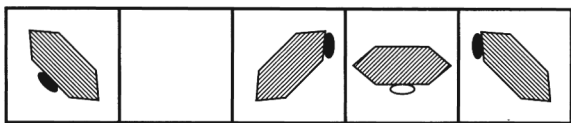
b

c

d

e

67



a

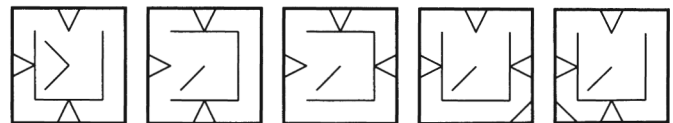
b

c

d

e

68



a

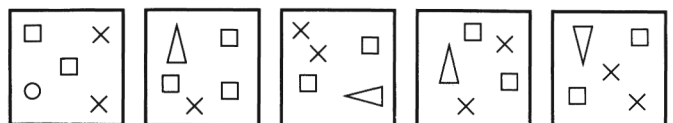
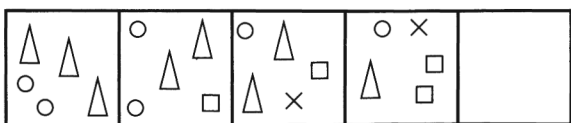
b

c

d

e

69



a

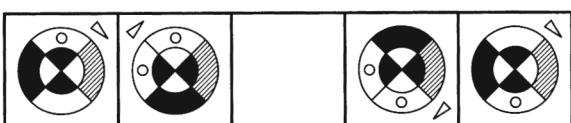
b

c

d

e

70



a

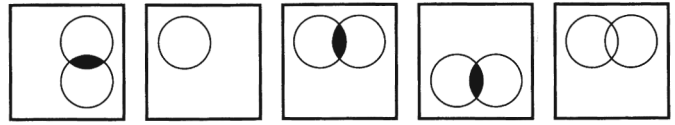
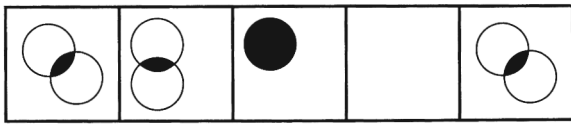
b

c

d

e

71



a

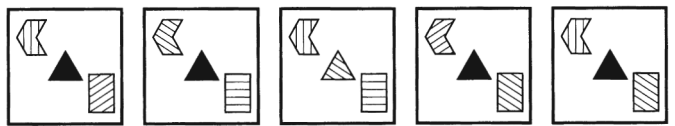
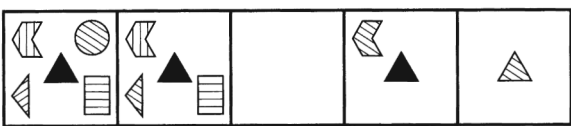
b

c

d

e

72



a

b

c

d

e

73



a

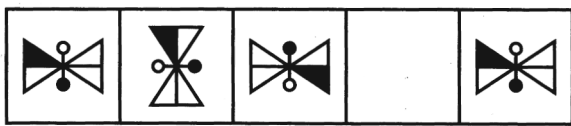
b

c

d

e

74



a

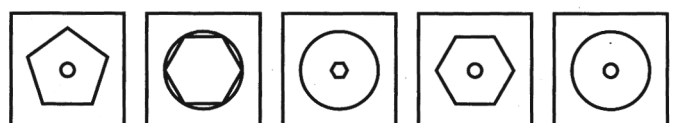
b

c

d

e

75



a

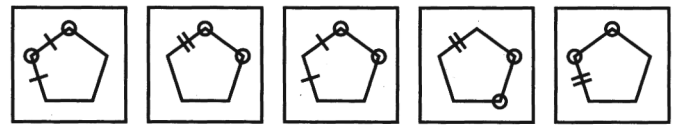
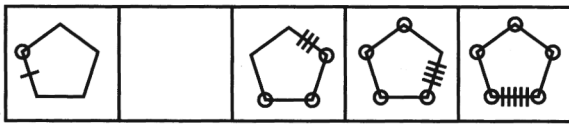
b

c

d

e

76



a

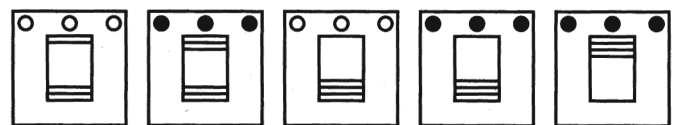
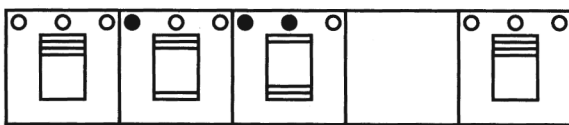
b

c

d

e

77



a

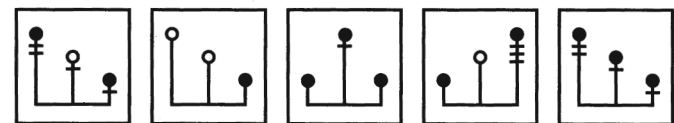
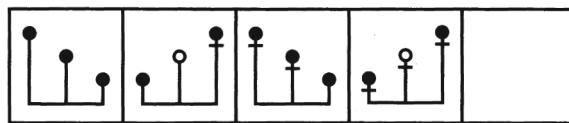
b

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e

78



a

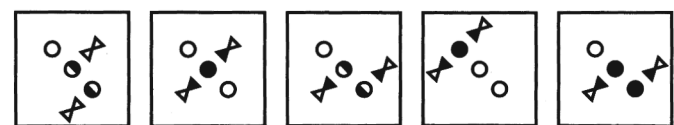
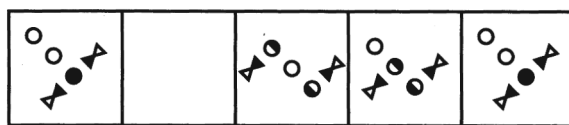
b

c

d

e

79



a

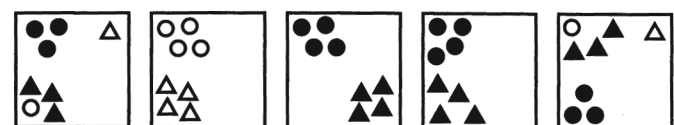
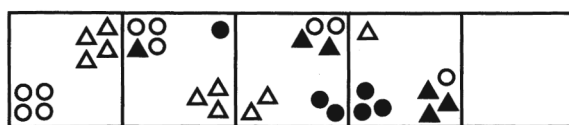
b

c

d

e

80



a

b

c

d

e

Pupil's Name

Date of Test

School Name

Please mark boxes with a thin horizontal line like this .

SCHOOL NUMBER

10	10	10	10	10	10
11	11	11	11	11	11
12	12	12	12	12	12
13	13	13	13	13	13
14	14	14	14	14	14
15	15	15	15	15	15
16	16	16	16	16	16
17	17	17	17	17	17
18	18	18	18	18	18
19	19	19	19	19	19

SCHOOL NUMBER

10	10	10	10	10	10
11	11	11	11	11	11
12	12	12	12	12	12
13	13	13	13	13	13
14	14	14	14	14	14
15	15	15	15	15	15
16	16	16	16	16	16
17	17	17	17	17	17
18	18	18	18	18	18
19	19	19	19	19	19

DATE OF BIRTH

Day	Month	Year
10	10	1997
11	11	1998
12	12	1999
13	13	2000
14	14	2001
15	15	2002
16	16	2003
17	17	2004
18	18	2005
19	19	2006
	10	2007
	11	2008

Finding similarities and differences: find the diagram like the first three

EXAMPLE

A

B

C

D

E

PRACTICE 1

A

B

C

D

E

PRACTICE 2

A

B

C

D

E

Completing diagrams: complete the grid

EXAMPLE

A

B

C

D

E

PRACTICE 3

A

B

C

D

E

PRACTICE 4

A

B

C

D

E

Cracking codes: crack the horizontal code

EXAMPLE

A

B

C

D

E

PRACTICE 5

A

B

C

D

E

PRACTICE 6

A

B

C

D

E







Section 3

EXAMPLE

A

B

C

D

E

P1

A

B

C

D

E

P2

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

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46

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58

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59

A

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C

D

E

60

A

B

C

D

E

Section 4

EXAMPLE

A

B

C

D

E

P1

A

B

C

D

E

P2

A

B

C

D

E

61

A

B

C

D

E

62

A

B

C

D

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63

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D

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77

A

B

C

D

E

78

A

B

C

D

E

79

A

B

C

D

E

80

A

B

C

D

E

## Familiarisation Questions Answer Key

Section	Question	Answer option	Explanation
Finding similarities and differences	<b>P1</b>	e	All three shapes on the left-hand side are different but they all have a black spot in their middle. Only one shape in the group on the right has a black spot. Therefore, the answer is E.
	<b>P2</b>	b	<p>The first three figures are lines with one common feature: they all have one small, unfilled square overlapping somewhere along the line.</p> <p>The only figure with a similar square from the answer options is figure B.</p>
Completing diagrams	<b>P3</b>	a	<p>The arrow-like shape in the top-left square is also in the top-right square. But in the top-right square it has been rotated 90° clockwise: instead of pointing upwards, it now points right.</p> <p>The empty square should therefore be filled by a shape that is the same as the shape in the bottom-left square but rotated 90° clockwise. The answer is therefore A.</p>
	<b>P4</b>	c	<p>This diagram has nine squares with each square filled with one of two types of shape. The order of the shapes is alternate (whichever way you follow the pattern).</p> <p>The empty square should therefore be filled with the arrow-like shape and must be pointing the same way and be the same colour as all the other arrow-like shapes. The answer, therefore, is C.</p>

Cracking codes	<b>P5</b>	a	<p>Which of the diagrams have something in common? The first and third have circles. They also both have the letter 'M'. Therefore the top letter must stand for the shape. The test shape is a triangle so should have the letter 'N' (the same as the second diagram).</p> <p>The three diagrams have three different bottom letters and also three different numbers of dots in their shapes: none, one and two dots. The test shape has no dots and should share a letter with the first diagram, the letter 'G'.</p> <p>The answer to the question is therefore option A, the letters 'N' and 'G'.</p>
	<b>P6</b>	e	<p>In this question, the second and third diagrams share a letter 'S' at the top and also have the same shape. The first and fourth diagrams also share a top letter and a shape, a hexagon. Therefore, the top letter describes the shape. The test shape is a hexagon and should therefore also have an 'R'.</p> <p>The first and third diagrams share a bottom letter. They have different shapes but they have the same shading. The test shape has no shading. The only other diagram with no shading is the second, which has a bottom letter 'G'.</p> <p>Therefore the answer is 'R' and 'G', answer option E.</p>

# Practice Test Answer Key

The answers for the practice test are below. Only these answers are allowed. One mark should be given for each correct answer – do not allow half marks or ‘the benefit of the doubt’. Do not deduct marks for wrong answers.

Remember to take into account the answers your child completed once the time for the test was up and the questions answered after that point.

The results may suggest that more practice is needed. Remember, always try to be positive and encouraging. Talk through the mistakes your child has made in a non-condemnatory way – work out together how to get the right answer.

	Section 1		Section 2		Section 3		Section 4
<b>P1</b>	c	<b>P1</b>	c	<b>P1</b>	b	<b>P1</b>	c
<b>P2</b>	a	<b>P2</b>	d	<b>P2</b>	c	<b>P2</b>	a
<b>1</b>	a	<b>21</b>	a	<b>41</b>	b	<b>61</b>	c
<b>2</b>	a	<b>22</b>	a	<b>42</b>	d	<b>62</b>	b
<b>3</b>	b	<b>23</b>	b	<b>43</b>	c	<b>63</b>	b
<b>4</b>	c	<b>24</b>	a	<b>44</b>	c	<b>64</b>	c
<b>5</b>	a	<b>25</b>	a	<b>45</b>	d	<b>65</b>	c
<b>6</b>	a	<b>26</b>	e	<b>46</b>	b	<b>66</b>	e
<b>7</b>	d	<b>27</b>	c	<b>47</b>	a	<b>67</b>	c
<b>8</b>	c	<b>28</b>	e	<b>48</b>	a	<b>68</b>	e
<b>9</b>	c	<b>29</b>	d	<b>49</b>	a	<b>69</b>	d
<b>10</b>	a	<b>30</b>	b	<b>50</b>	c	<b>70</b>	a
<b>11</b>	a	<b>31</b>	e	<b>51</b>	d	<b>71</b>	c
<b>12</b>	c	<b>32</b>	a	<b>52</b>	c	<b>72</b>	e
<b>13</b>	d	<b>33</b>	e	<b>53</b>	a	<b>73</b>	b
<b>14</b>	b	<b>34</b>	a	<b>54</b>	d	<b>74</b>	d
<b>15</b>	d	<b>35</b>	a	<b>55</b>	c	<b>75</b>	d
<b>16</b>	c	<b>36</b>	c	<b>56</b>	a	<b>76</b>	b
<b>17</b>	e	<b>37</b>	b	<b>57</b>	c	<b>77</b>	d
<b>18</b>	e	<b>38</b>	e	<b>58</b>	d	<b>78</b>	e
<b>19</b>	c	<b>39</b>	c	<b>59</b>	e	<b>79</b>	c
<b>20</b>	b	<b>40</b>	d	<b>60</b>	a	<b>80</b>	d

### **Some final reminders...**

- Read the instructions on the front of the test booklet.
- Read the instructions for each section carefully.
- Listen carefully to invigilators and the instructions they give you. They are there to help you.
- Check that your name and date of birth are correctly shown on the answer sheet.
- There are some points in the test at which you will be asked to stop working and not turn the page.
- Be sure to keep your place on the answer sheet. Mark your answer in the box that has the same number as the test question.
- Make sure all your answers are recorded on the answer sheet before the end of the test.





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