

# GL Buckinghamshire Mock 2

## Mathematical and Non-Verbal Skills



### Mathematical and Non-Verbal Skills

- This test is divided into two sections.
- The first section tests Non-Verbal Reasoning and Spatial Reasoning skills. It contains five 5-minute subtests. You will have a chance to practise a few questions before each subtest.
- The second section tests Mathematics. It consists of a 5-minute practice section followed by a 25-minute test.
- All answers should be marked on the separate answer sheet provided.

**Please turn over the page to begin the practice section for Non-Verbal Reasoning Subtest 1.**



# Non-Verbal Reasoning Subtest 1 Practice

(untimed)

This practice section gives an example of the sort of questions you will be faced with in this test, with the correct answer filled in on the answer sheet so that you can see how to do it.

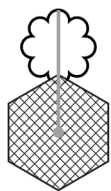
There are also some practice questions that don't have the answers filled in, so that you can practise working them out for yourself and filling in the answer sheet.

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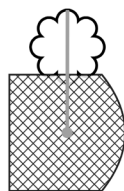
In each question, there are figures and code letters that go with them. There may be two or three letters that make up each code. Each letter within a code means something different and corresponds to a part of the figure. One figure is missing a code.

Choose the missing code and mark it on your answer sheet.

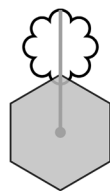
## A Example



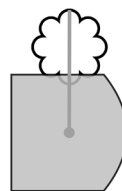
WO



XO



WP



??

a. WO

b. WP

c. XQ

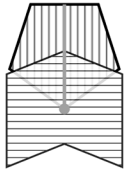
d. XP

e. XO

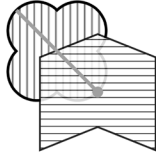
The answer is **d**.

## 1 Practice

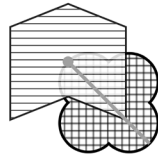
What is the missing code?



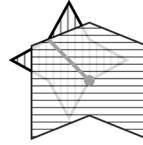
UXA



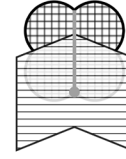
VXB



VYC



WXB



???

a. WYA

b. VYA

c. VXC

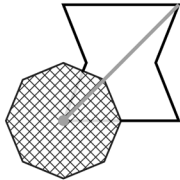
d. VYB

e. UYA

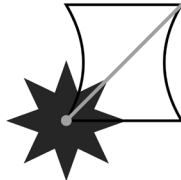
## 2 Practice



QXIC



RXJD



SYID



????

a. QYID

b. RYJD

c. QYJD

d. SYJD

e. RYID

**END OF PRACTICE**

Non-Verbal Reasoning Subtest 1 begins on the next page.

- You have 5 minutes to complete Non-Verbal Reasoning Subtest 1.
- There are 10 questions to answer.
- Your time will start when you turn over the page.
- Do not turn over the page until you are told to do so.

# Non-Verbal Reasoning Subtest 1

(5 minutes)

In these questions, you must work out the missing code and mark its letter on your answer sheet.

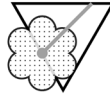
1



WO



XP



WP



??

a. YP

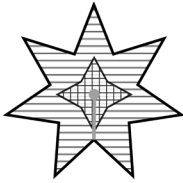
b. XO

c. XP

d. WP

e. WO

2



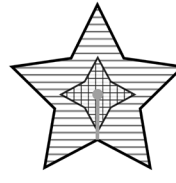
XIR



XJS



YIS



???

a. XJR

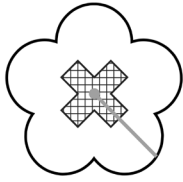
b. YJS

c. XIS

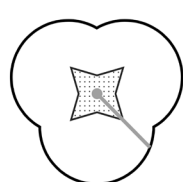
d. YJR

e. YIR

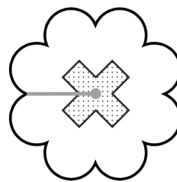
3



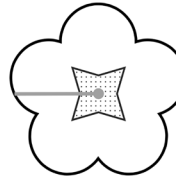
SEWJ



TFXJ



UEXK



????

a. SFXK

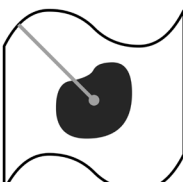
b. SEWK

c. SEXJ

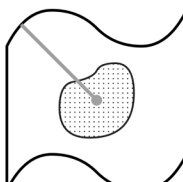
d. TEXJ

e. UFXK

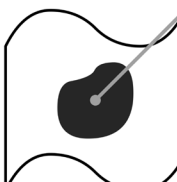
4



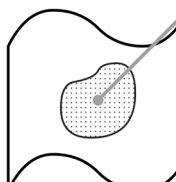
SO



TO



SP



??

a. TP

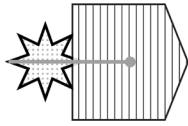
b. SO

c. UP

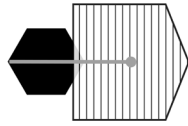
d. TO

e. SP

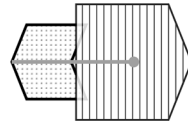
5



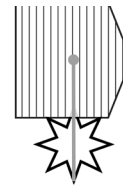
JFW



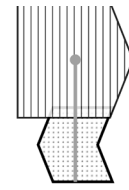
KGW



LFW



JHX



???

a. LHX

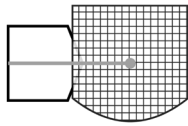
b. KHW

c. LFX

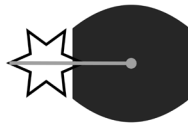
d. LGW

e. LGX

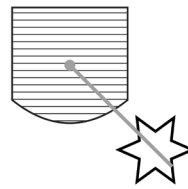
6



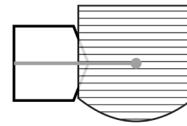
EAIT



FBJT



FAKU



????

a. FBIU

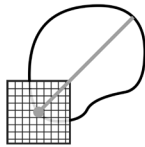
b. EBIT

c. EAKT

d. EAIU

e. FBKU

7



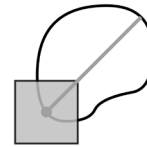
ME



NE



NF



??

a. ME

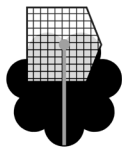
b. NF

c. MF

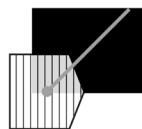
d. MG

e. NE

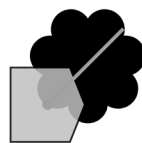
8



IEP



JFQ



IGQ



KFQ



???

a. KEQ

b. KGP

c. KEP

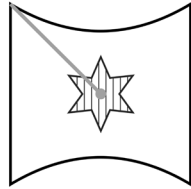
d. JGQ

e. KFP

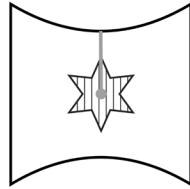
9



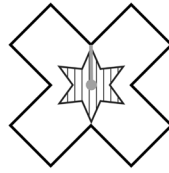
LH



MH



MI



??

a. LH

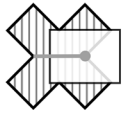
b. LI

c. MI

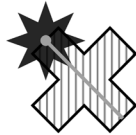
d. MH

e. MJ

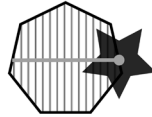
10



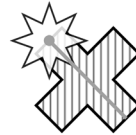
MJSB



MKTC



NLTB



????

a. NJTC

b. NKSB

c. NKTB

d. NJSC

e. MKSC

END OF NON-VERBAL REASONING SUBTEST 1.  
DO NOT TURN OVER THE PAGE UNTIL YOU ARE TOLD TO DO SO.

# Non-Verbal Reasoning Subtest 2 Practice

(untimed)

This practice section gives an example of the sort of questions you will be faced with in this test, with the correct answer filled in on the answer sheet so that you can see how to do it.

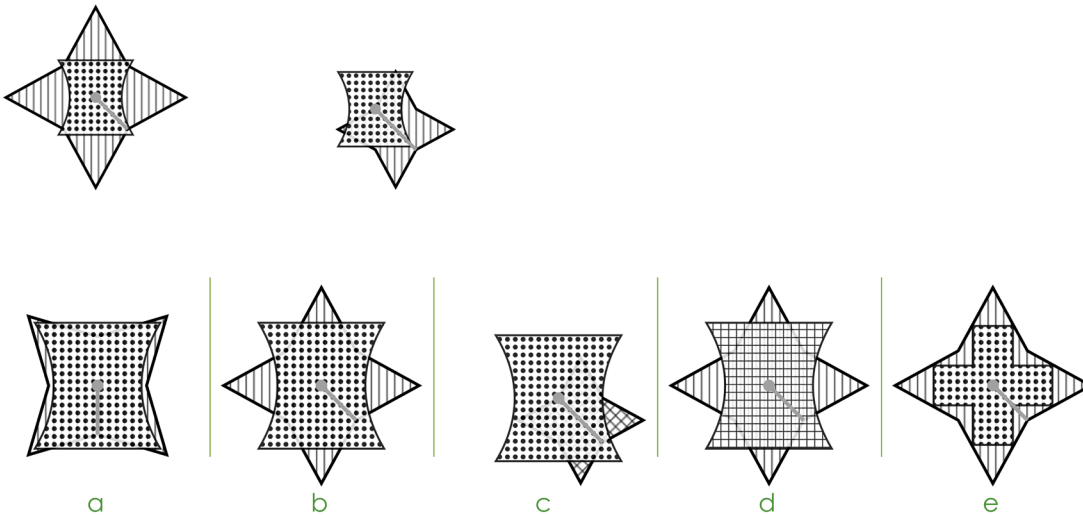
There are also some practice questions that don't have the answers filled in, so that you can practise working them out for yourself and filling in the answer sheet.

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In these questions, there are two figures that are alike. Underneath there are five more figures: one of these is most like the two figures above and its letter has been marked on your answer sheet.

Choose the correct figure and mark it on your answer sheet.

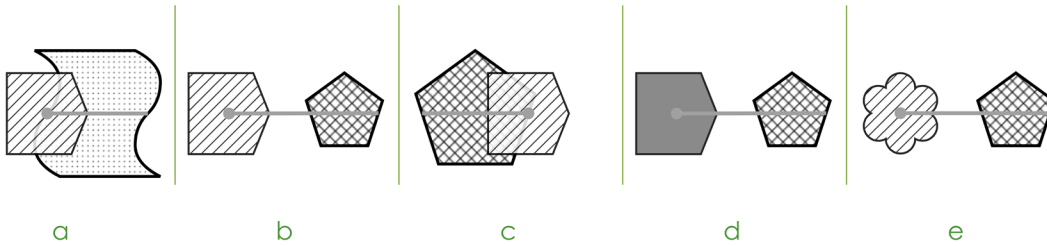
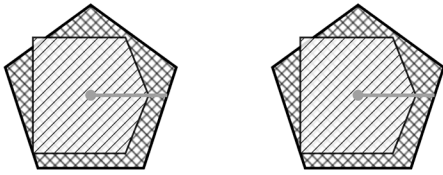
## A Example



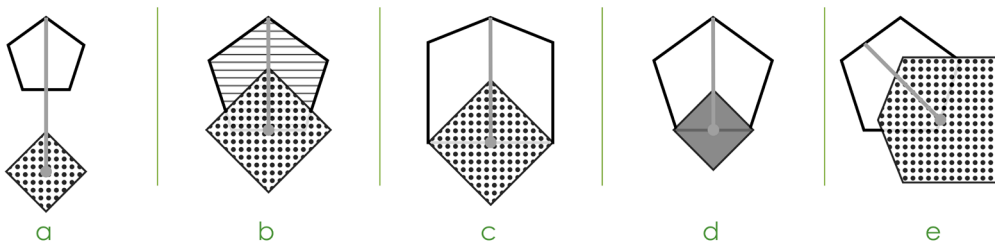
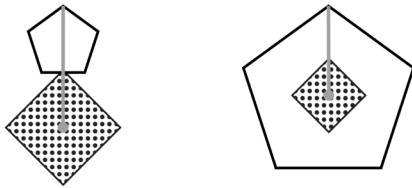
The answer is **b**.

## 1 Practice

Choose the figure that is most similar to the figures in the question.



## 2 Practice



**END OF PRACTICE**

Non-Verbal Reasoning Subtest 2 begins on the next page.

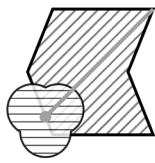
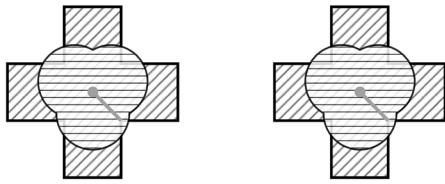
- You have 5 minutes to complete Non-Verbal Reasoning Subtest 2.
- There are 10 questions to answer.
- Your time will start when you turn over the page.
- Do not turn over the page until you are told to do so.

## Non-Verbal Reasoning Subtest 2

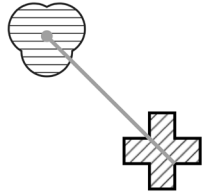
(5 minutes)

Choose the figure that is most similar to the figures in the question.

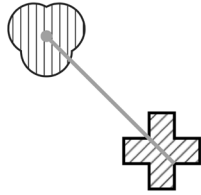
1



a



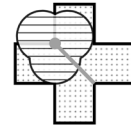
b



c

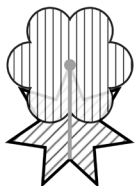
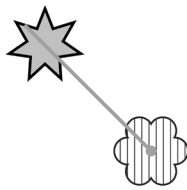
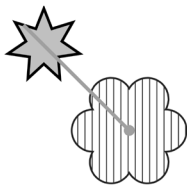


d

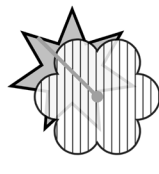


e

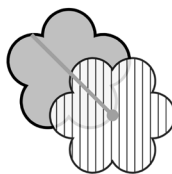
2



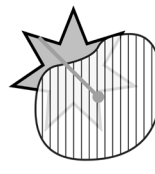
a



b



c

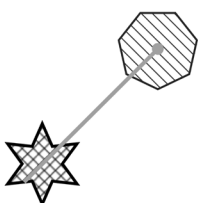
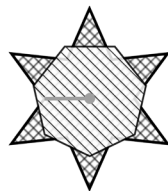
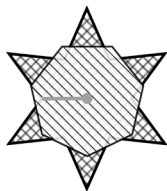


d

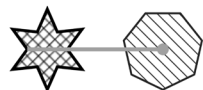


e

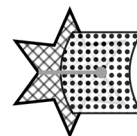
3



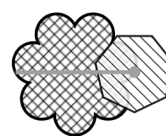
a



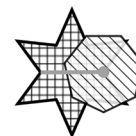
b



c

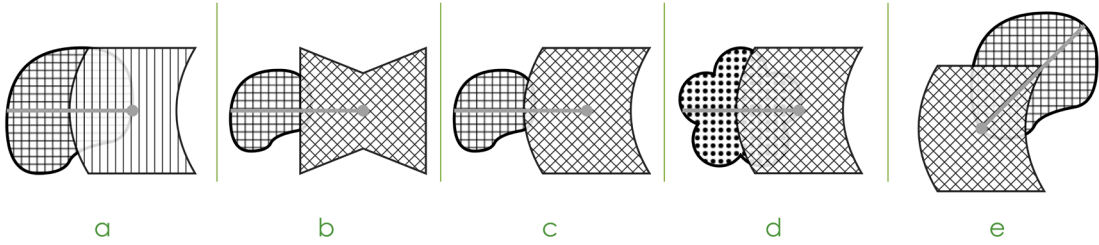
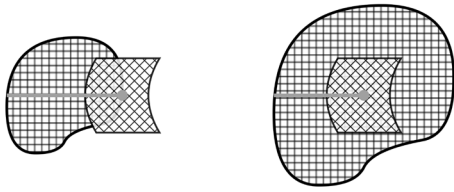


d

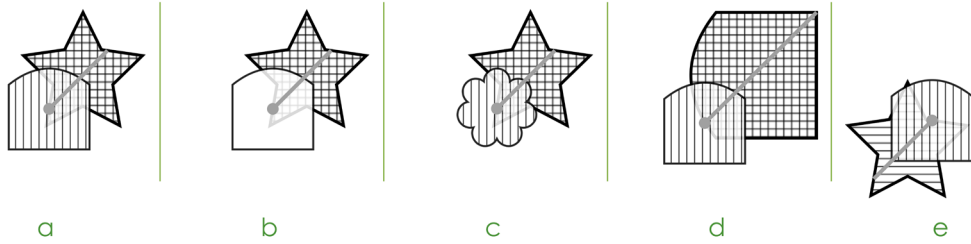
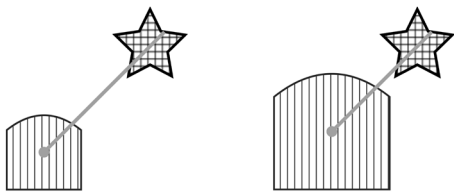


e

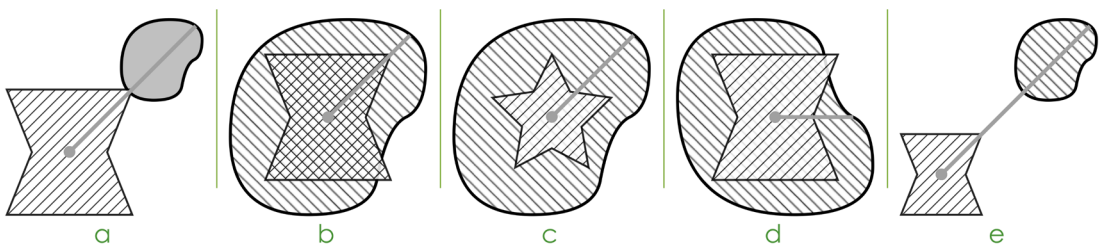
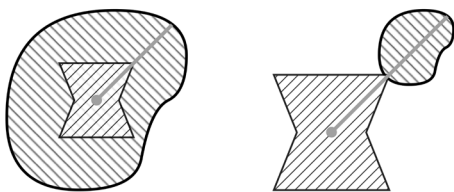
4



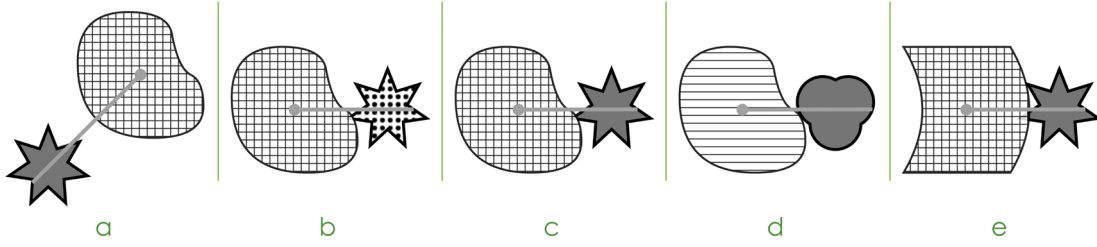
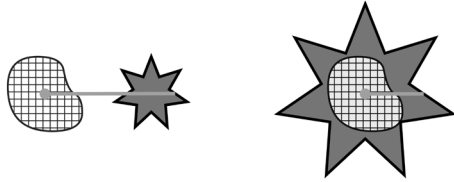
5



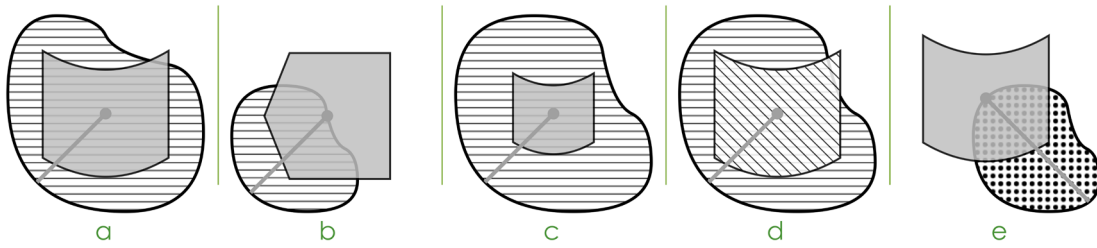
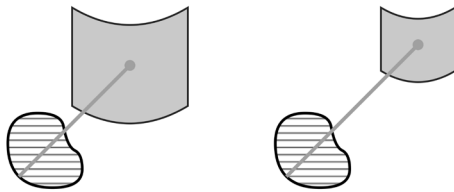
6



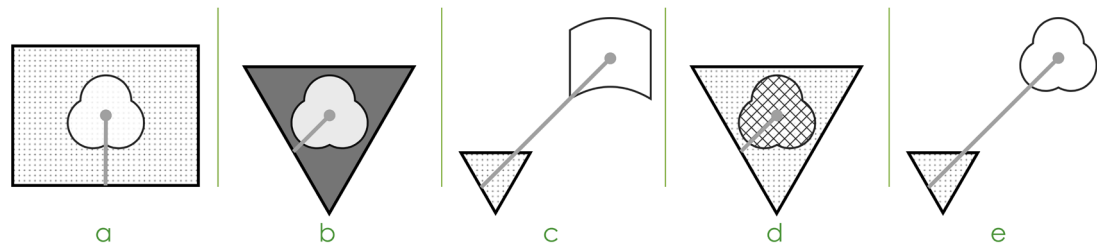
7



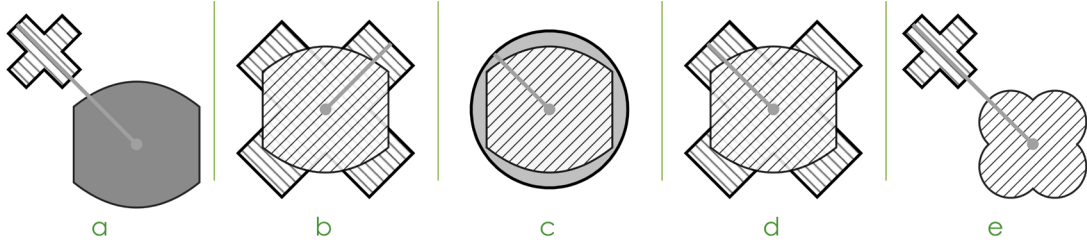
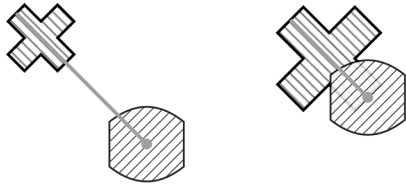
8



9



10



END OF NON-VERBAL REASONING SUBTEST 2.  
DO NOT TURN OVER THE PAGE UNTIL YOU ARE TOLD TO DO SO.

# Non-Verbal Reasoning Subtest 3 Practice

(untimed)

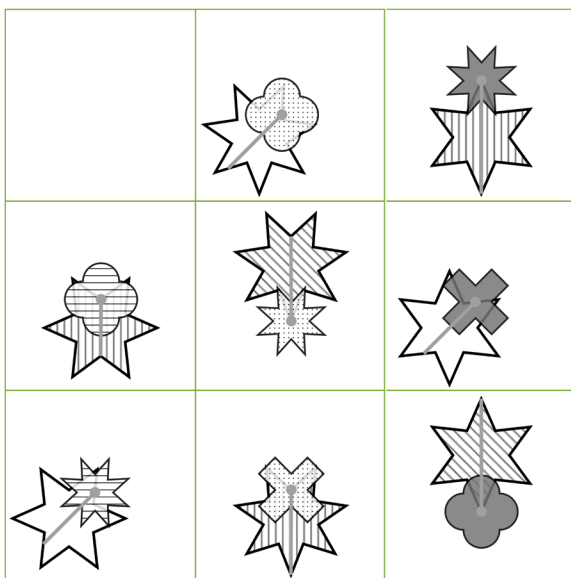
This practice section gives an example of the sort of questions you will be faced with in this test, with the correct answer filled in on the answer sheet so that you can see how to do it.

There are also some practice questions that don't have the answers filled in, so that you can practise working them out for yourself and filling in the answer sheet.

In these questions, one of the small squares in the matrix has been left empty. One of the five figures underneath should fill the empty square.

Choose the correct figure and mark it on your answer sheet.

## A Example



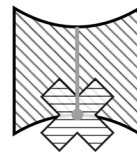
a



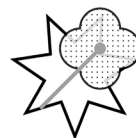
b



c



d

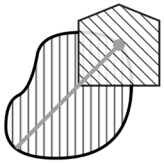
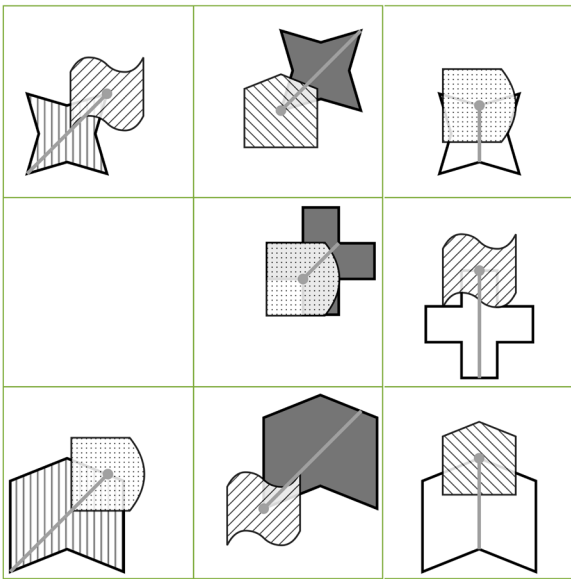


e

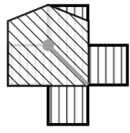
The answer is **b**.

## 1 Practice

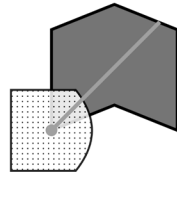
Which figure should fill the empty square?



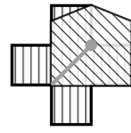
a



b



c

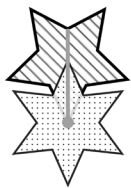
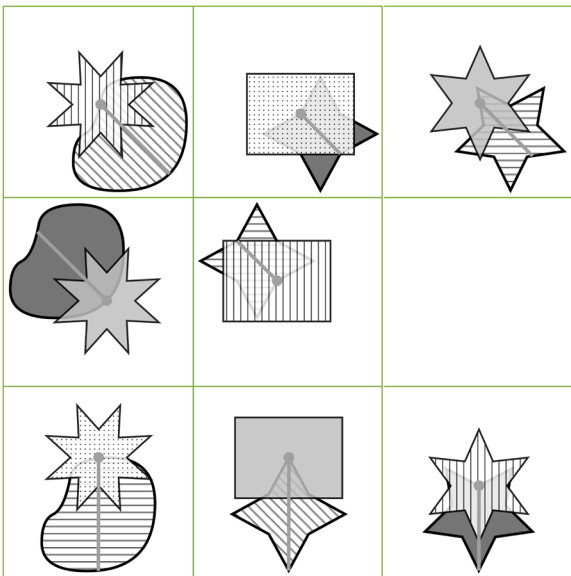


d



e

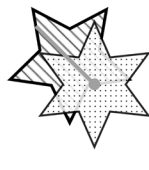
## 2 Practice



a



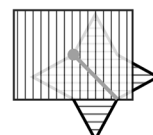
b



c



d



e

## **END OF PRACTICE**

**Non-Verbal Reasoning Subtest 3 begins on the next page.**

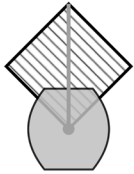
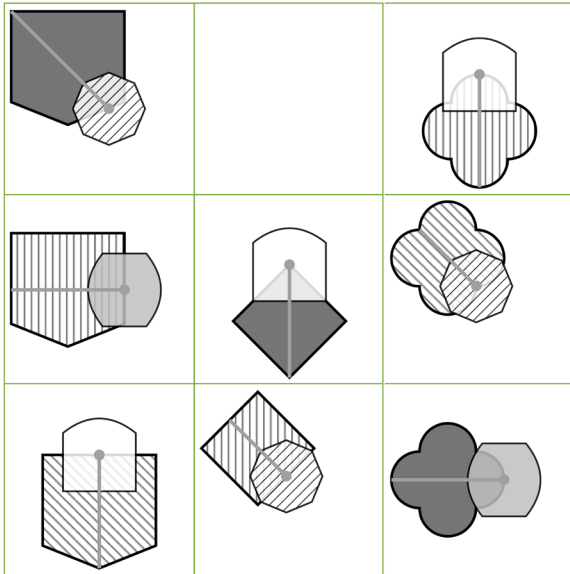
- **You have 5 minutes to complete Non-Verbal Reasoning Subtest 3.**
- **There are 10 questions to answer.**
- **Your time will start when you turn over the page.**
- **Do not turn over the page until you are told to do so.**

## Non-Verbal Reasoning Subsection 3

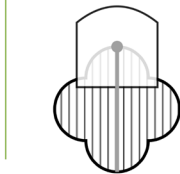
(5 minutes)

Which figure should fill the empty square? Mark its letter on your answer sheet.

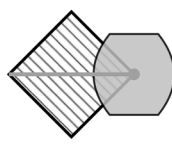
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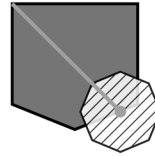
a



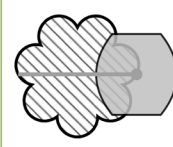
b



c

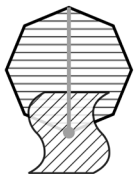
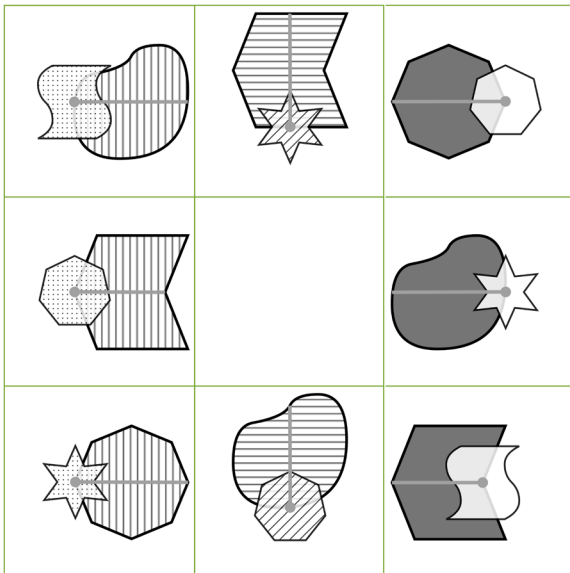


d

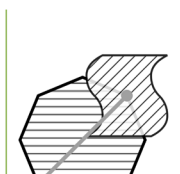


e

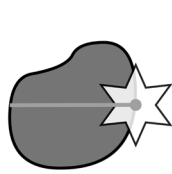
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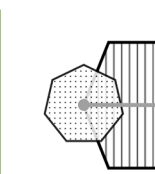
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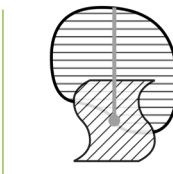
b



c

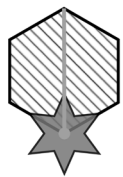
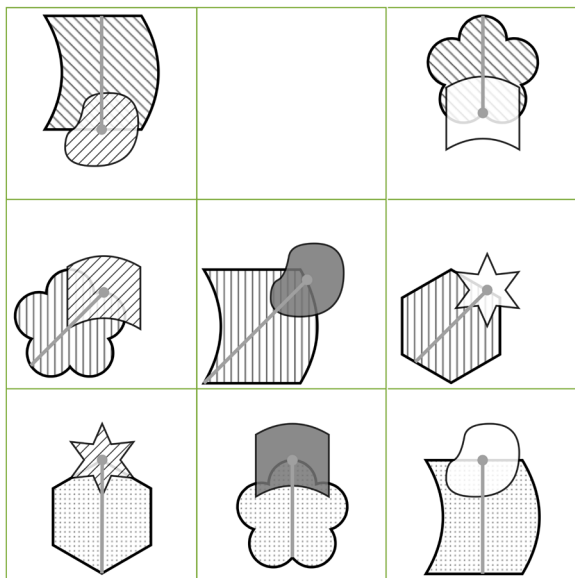


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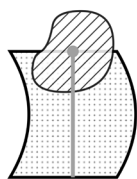


e

3



a



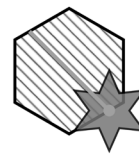
b



c

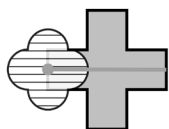
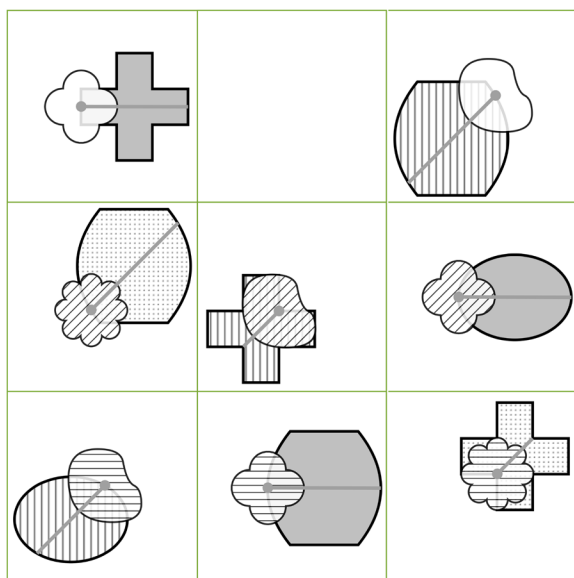


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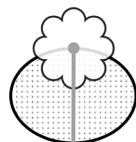
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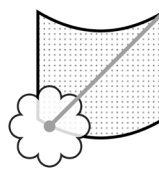
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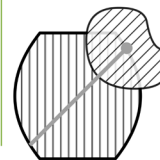
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c

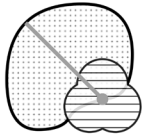
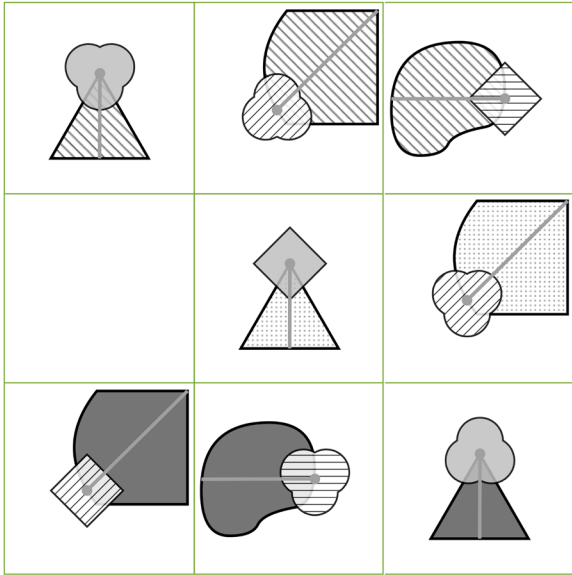


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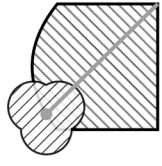


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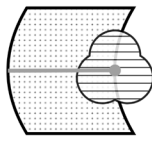
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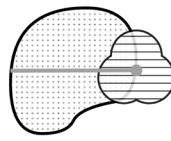
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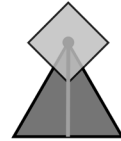
b



c

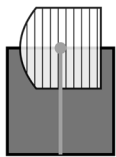
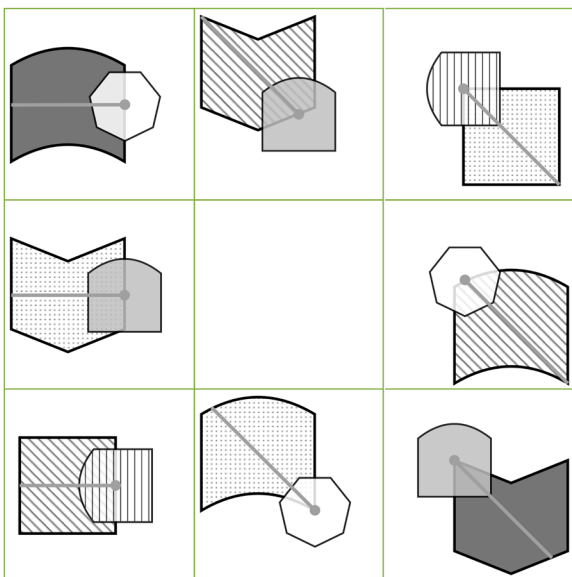


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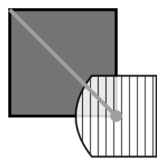


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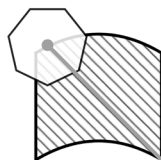
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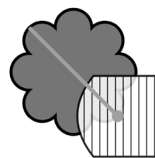
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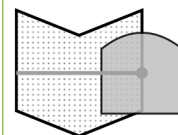
b



c

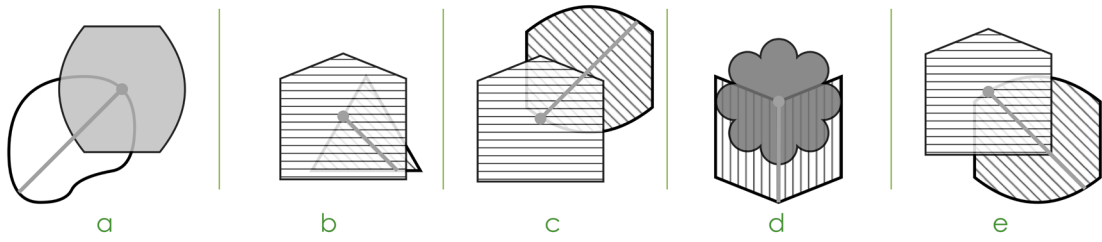
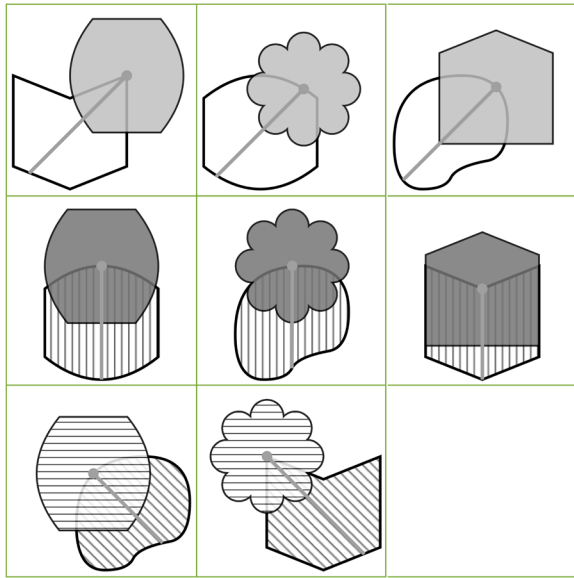


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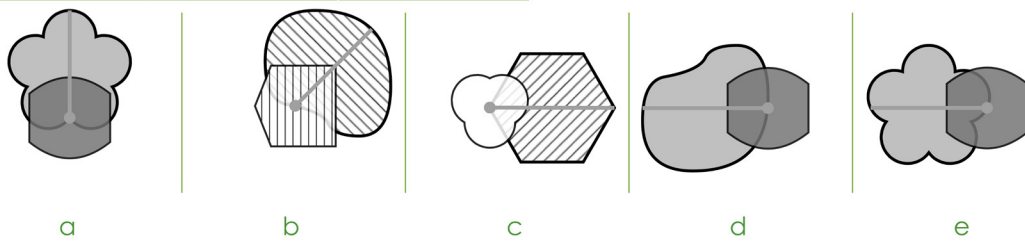
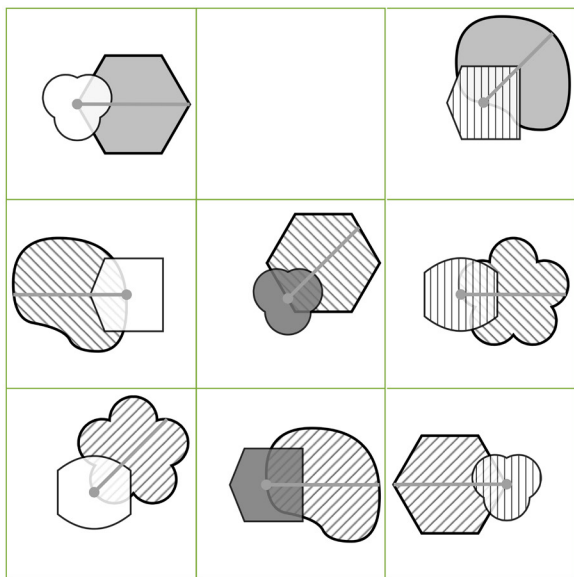


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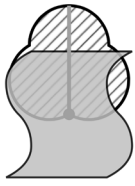
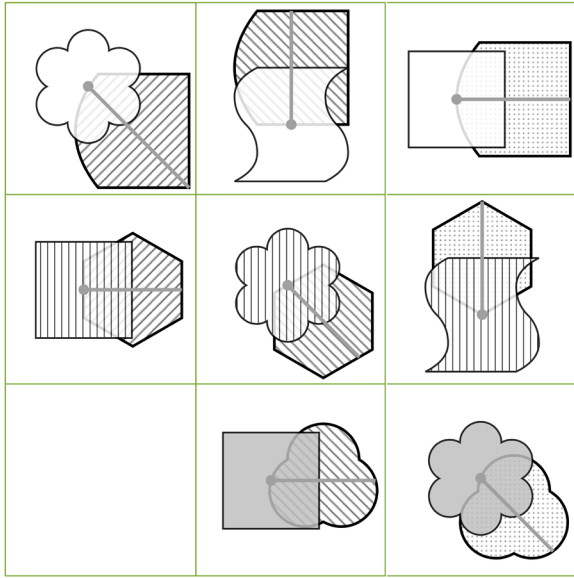
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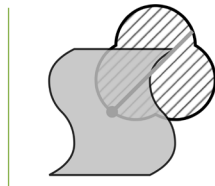
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9



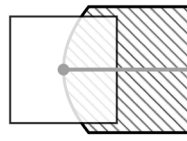
a



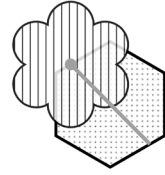
b



c

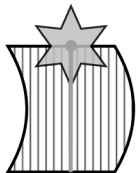
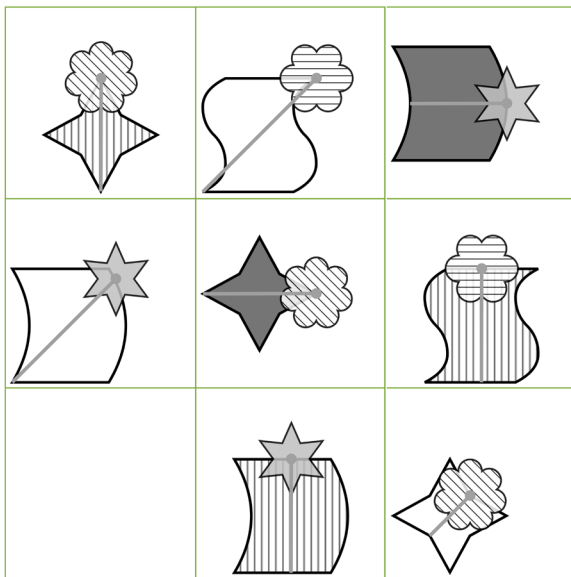


d



e

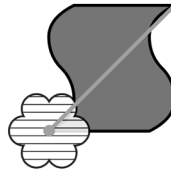
10



a



b



c



d



e

END OF NON-VERBAL REASONING SUBTEST 2.  
DO NOT TURN OVER THE PAGE UNTIL YOU ARE TOLD TO DO SO.

# Spatial Reasoning Subtest 1 Practice Section

(untimed)

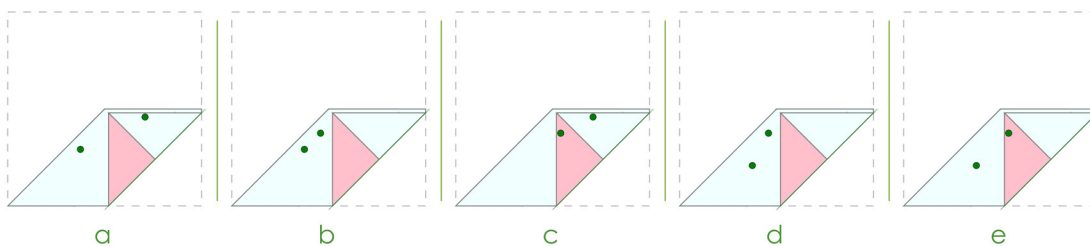
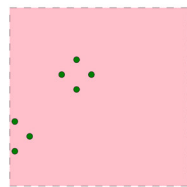
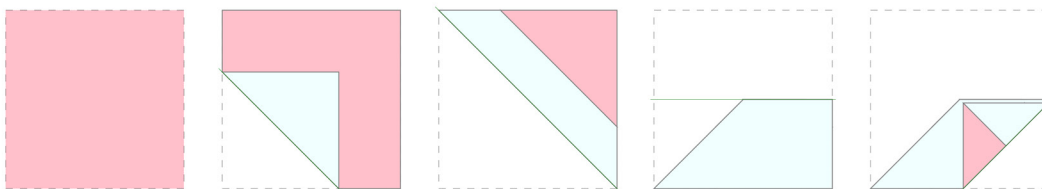
This practice section gives an example of the sort of questions you will be faced with in this test, with the correct answer filled in on the answer sheet so that you can see how to do it.

There are also some practice questions that don't have the answers filled in, so that you can practise working them out for yourself and filling in the answer sheet.

In these questions, a square of paper is folded in the sequence shown. The next shape shows the paper unfolded, with holes.

You must choose the figure that shows where the holes were punched. Choose the correct figure and mark it on your answer sheet.

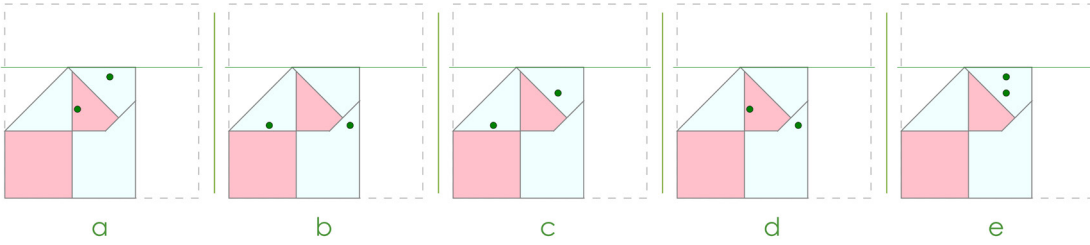
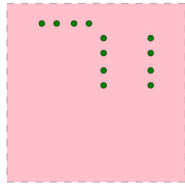
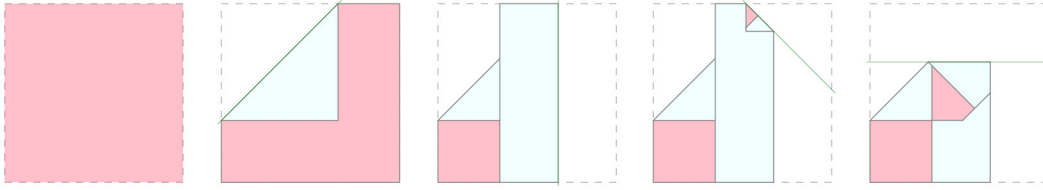
## A Example



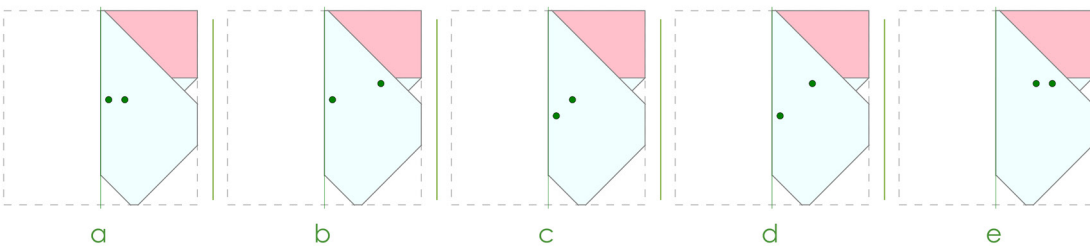
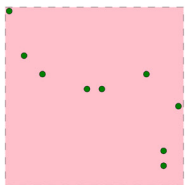
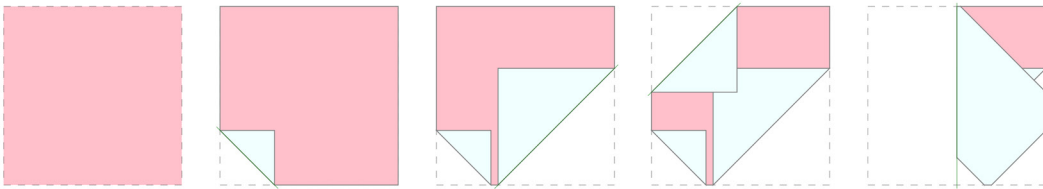
The answer is **b**.

# 1 Practice

Choose the figure that shows where the holes were punched.



# 2 Practice



## END OF PRACTICE

The Spatial Reasoning Subtest 1 begins on the next page.

- You have 5 minutes to complete Spatial Reasoning.
- There are 10 questions to answer.
- Your time will start when you turn over the page.
- Do not turn over the page until you are told to do so.

# Spatial Reasoning Subtest 1

(5 minutes)

A square of paper is folded in the sequence shown. The next shape shows the paper unfolded, with holes. Where were the holes punched to create these holes? Mark its letter on your answer sheet.

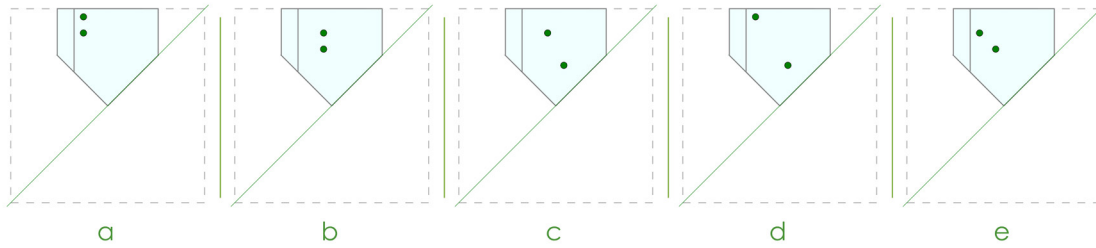
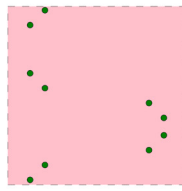
1

a                      b                      c                      d                      e

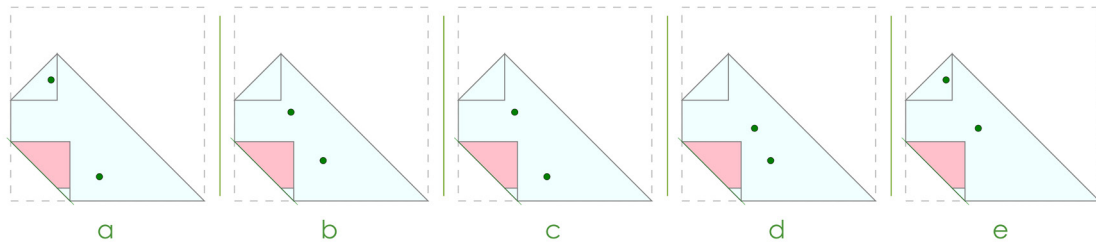
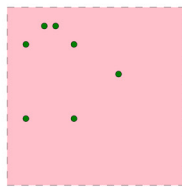
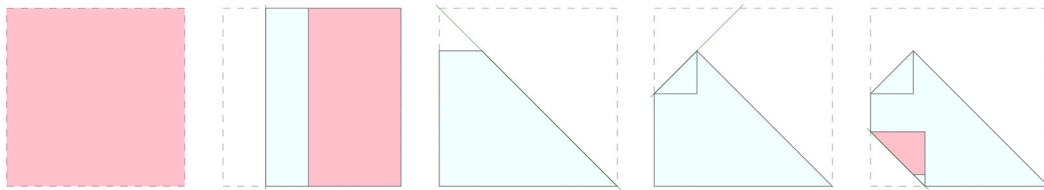
2

a                      b                      c                      d                      e

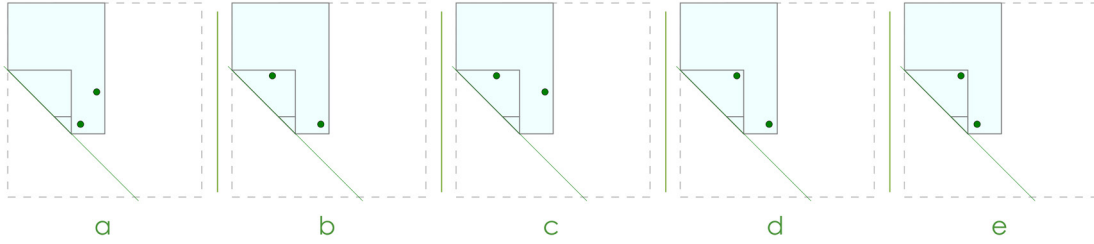
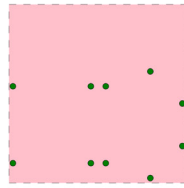
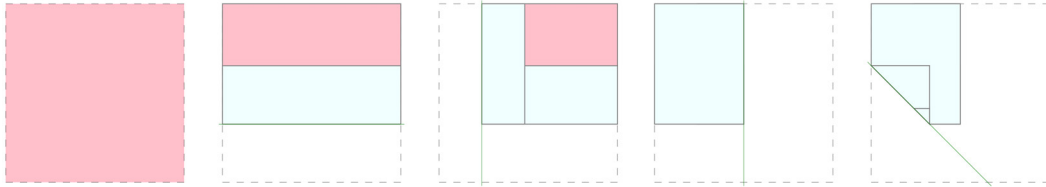
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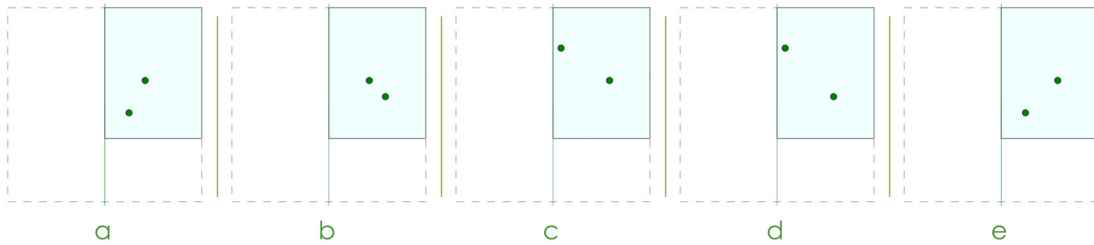
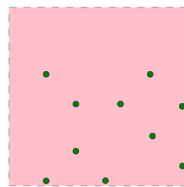
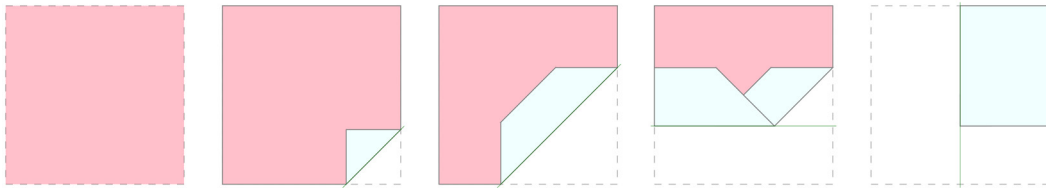
4



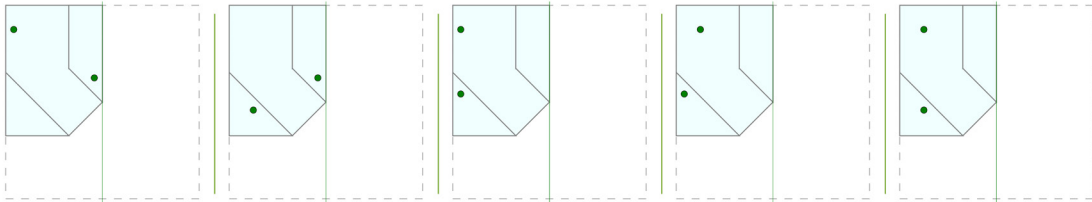
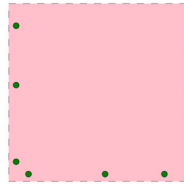
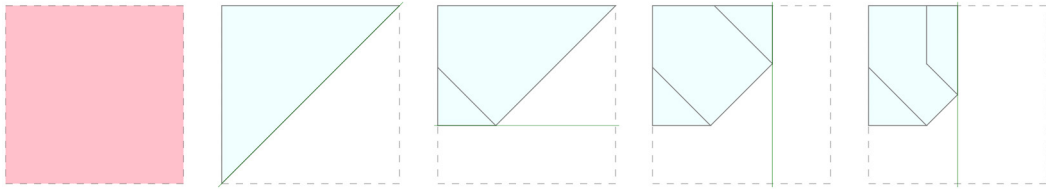
5



6



7



a

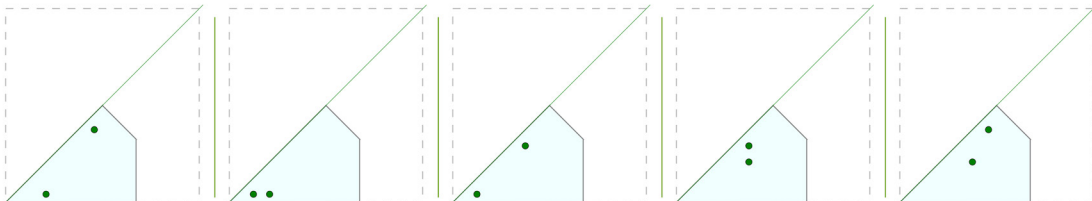
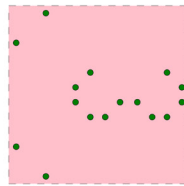
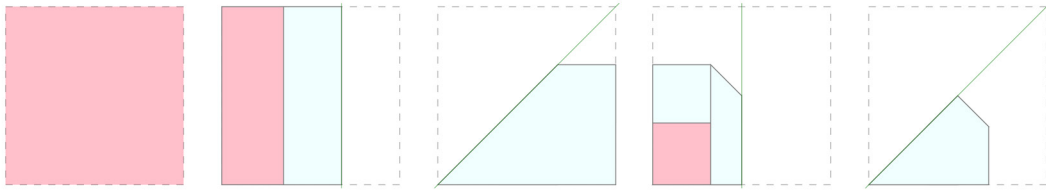
b

c

d

e

8



a

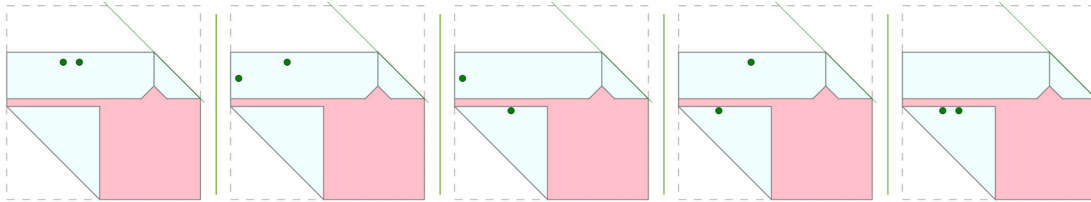
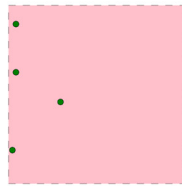
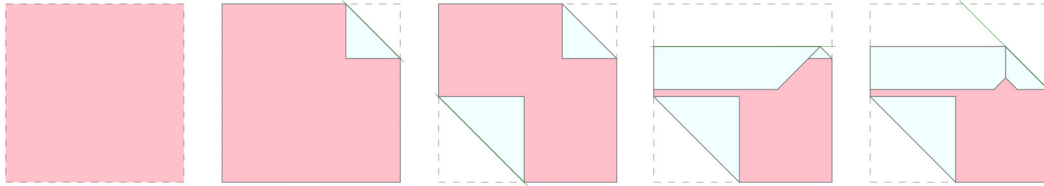
b

c

d

e

9



a

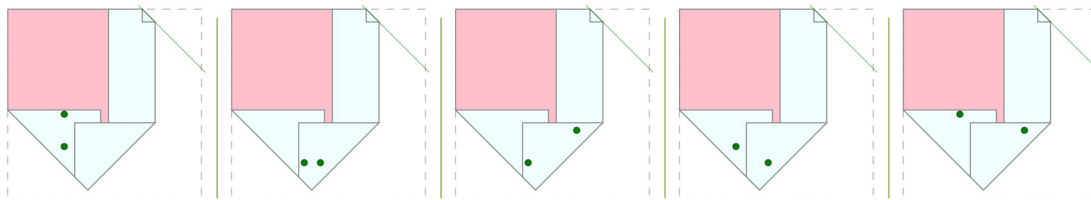
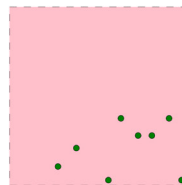
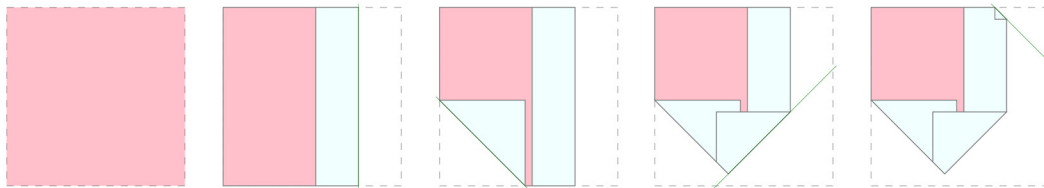
b

c

d

e

10



a

b

c

d

e

END OF SPATIAL REASONING SUBTEST 1.

DO NOT TURN OVER THE PAGE UNTIL YOU ARE TOLD TO DO SO.

# Spatial Reasoning Subtest 2 Practice Section

(untimed)

This practice section gives an example of the sort of questions you will be faced with in this test, with the correct answer filled in on the answer sheet so that you can see how to do it.

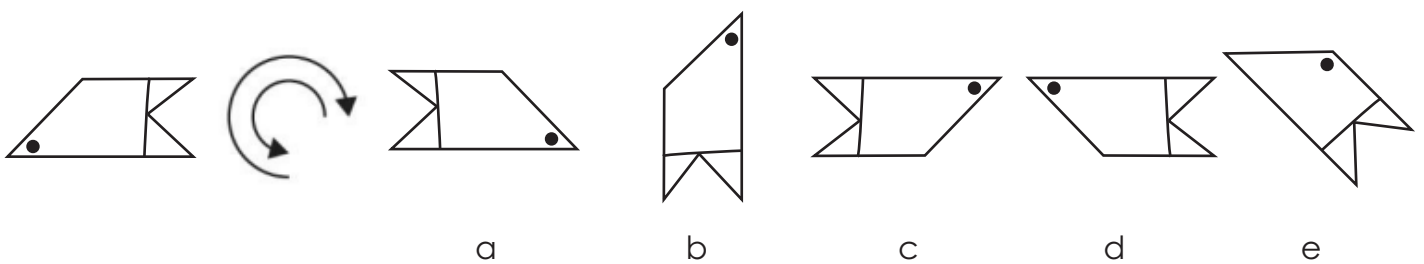
There are also some practice questions that don't have the answers filled in, so that you can practise working them out for yourself and filling in the answer sheet.

---

In these questions, one of the shapes on the right is exactly the same as the target shape on the left, but it has been rotated (spun round) into a different position.

Choose which of the five shapes on the right matches the target shape and mark its letter on your answer sheet.

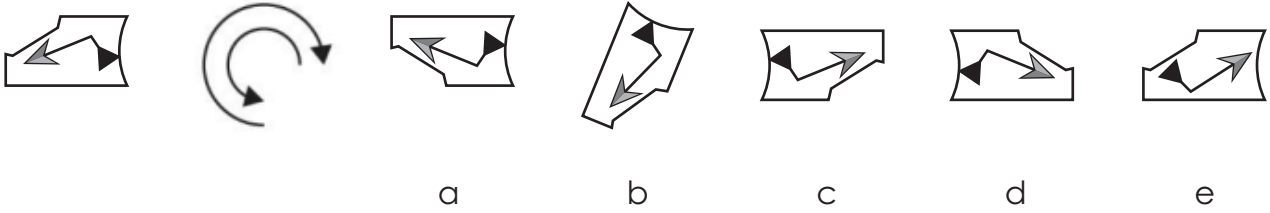
## A Example



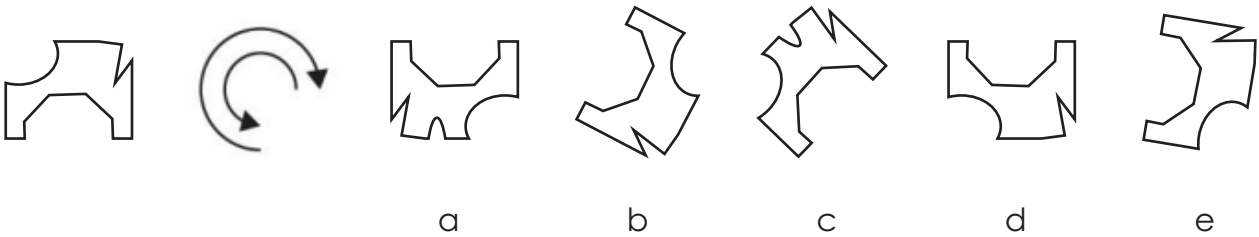
The answer is **c**.

## 1 Practice

Choose which of the five shapes on the right matches the target shape.



## 2 Practice



### END OF PRACTICE

Spatial Reasoning Subtest 2 begins on the next page.

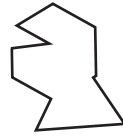
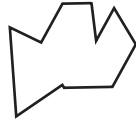
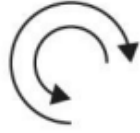
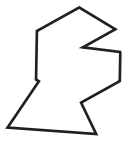
- You have 5 minutes to complete the Spatial Reasoning test.
- There are 10 questions to answer.
- Your time will start when you turn over the page.
- Do not turn over the page until you are told to do so.

## Spatial Reasoning Subtest 2

(5 minutes)

Choose which of the five shapes on the right matches the target shape.

1



a

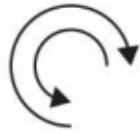
b

c

d

e

2



a

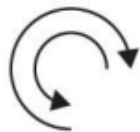
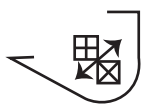
b

c

d

e

3



a

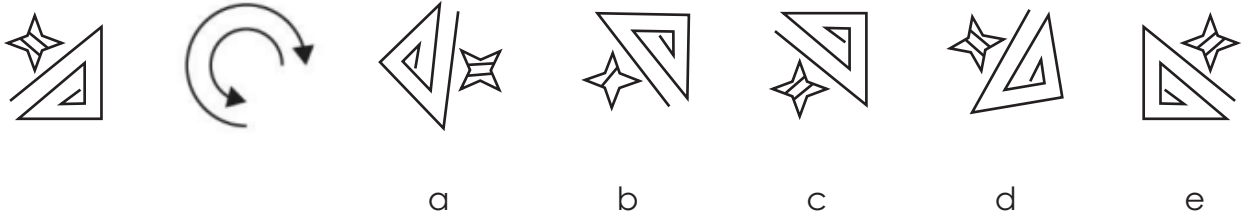
b

c

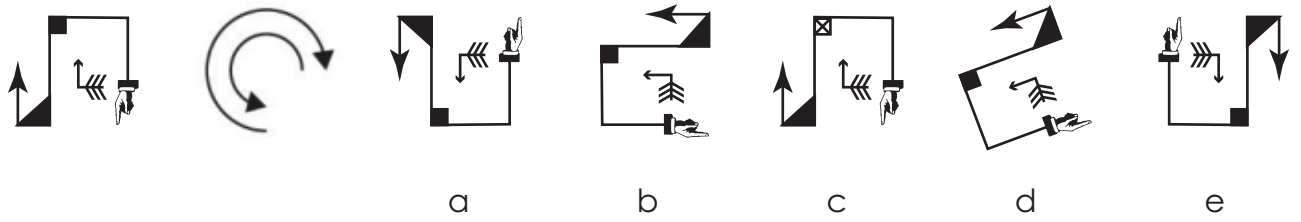
d

e

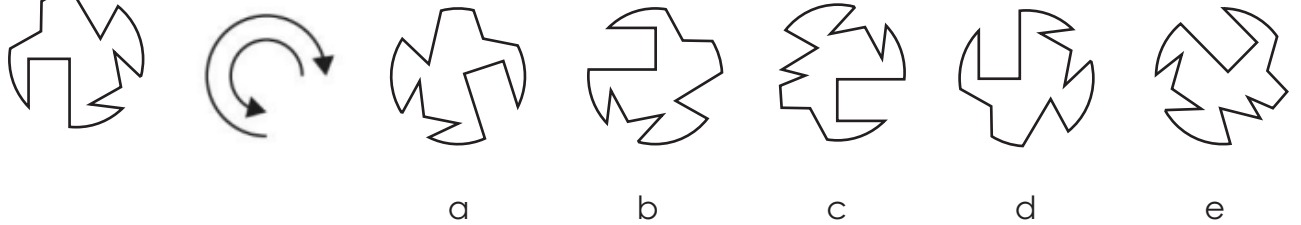
4



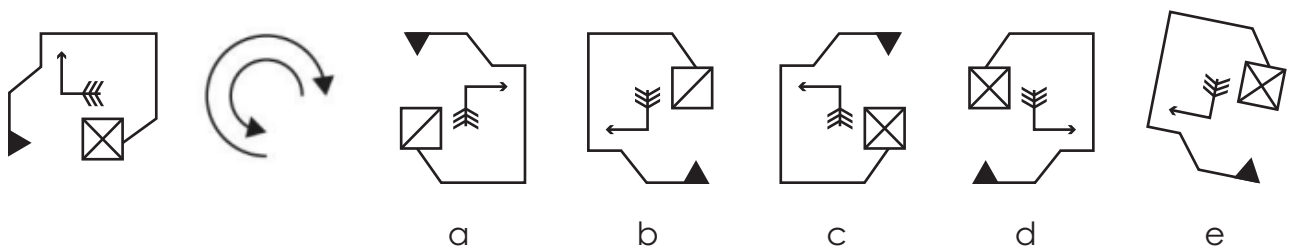
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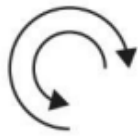
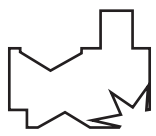
6



7



8



a



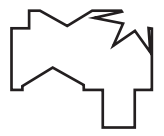
b



c

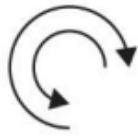


d



e

9



a



b



c

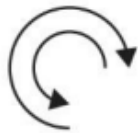
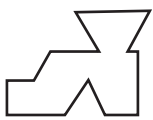


d

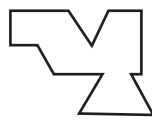


e

10



a



b



c



d



e

END OF SPATIAL REASONING SUBTEST 2.

DO NOT TURN OVER THE PAGE UNTIL YOU ARE TOLD TO DO SO.

# Maths Practice Section

(5 minutes)

This practice section gives an example of the sort of questions you will be faced with in this test, with the correct answer filled in on the answer sheet so that you can see how to do it.

There are also some practice questions that don't have the answers filled in, so that you can practise working them out for yourself and filling in the answer sheet.

---

**Work out the correct answer and mark its letter on the answer sheet.**

## A Example

A rectangle has a length of 12cm and a width of 7cm. What is the area of the rectangle?

A.  $84\text{cm}^2$       B.  $64\text{cm}^2$       C.  $38\text{cm}^2$       D.  $96\text{cm}^2$       E.  $76\text{cm}^2$

The answer is  **$84\text{cm}^2$** . You can work this out by multiplying the length of the rectangle by the width of the rectangle. The calculation is:

$$12 \times 7 =$$

The correct answer has been marked on your answer sheet.

**Now try these practice questions.**

**Work out the correct answer and mark it on the answer sheet.**

**1 Practice**

Which number is a multiple of both 4 and 9?

- A. 18                      B. 24                      C. 32                      D. 36                      E. 40

**2 Practice**

If one pencil costs 85p, how much would it cost to buy 6 pencils?

- A. £4.70                      B. £5.10                      C. £5.25                      D. £5.40                      E. £6.10

**END OF PRACTICE SECTION**

The maths test begins on the next page.

- You have 25 minutes to complete the maths test.
- There are 25 questions to answer.
- Your time will start when you turn over the page.
- Do not turn over the page until you are told to do so.

**Maths**  
**(25 minutes)**

**Work out the correct answer and mark its letter on your answer sheet.**

**1** What is  $\frac{1}{3}$  of  $2\frac{1}{2}$ ?

A  $\frac{5}{6}$

B  $\frac{1}{3}$

C  $1\frac{1}{4}$

D  $\frac{4}{7}$

E  $\frac{2}{3}$

**2** A book costs £6.80. If you buy three copies, how much change would you get from £25?

A £20.40

B £3.20

C £4.60

D £5.20

E £4.40

- 3** There are 36 apples in a basket.  $\frac{1}{3}$  of the apples are green and the rest are red. How many apples are red?
- A 18
- B 24
- C 30
- D 12
- E 26
- 4** Alice has 3 times as many apples as Bob. Together, they have 48 apples. How many apples does Bob have?
- A 12
- B 16
- C 18
- D 14
- E 24
- 5** What is the next prime number after 17?
- A 18
- B 19
- C 21
- D 23
- E 27

6 What is the value of  $x$  in  $7x + 4 = 32$ ?

A 3

B 5

C 6

D 7

E 4

7 Calculate the value of  $5^2 + 3^2$ .

A 22

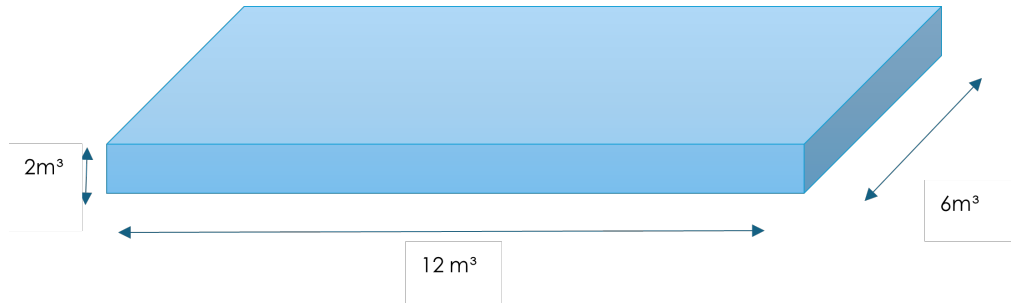
B 16

C 25

D 34

E 10

- 8 A pool is in the shape of a rectangular prism with a length of 12 metres, a width of 6 metres, and a depth of 2 metres. What is the capacity of the pool in cubic metres?



- A 144m<sup>3</sup>
- B 150m<sup>3</sup>
- C 180m<sup>3</sup>
- D 120m<sup>3</sup>
- E 200m<sup>3</sup>
- 9 Use this table of information to answer questions 9 & 10.

A stationery shop offers the following prices for their products:

Pack of 3 pens	Pencils	Pack of 5 highlighters	Pack of 4 rubbers
£1.20	25p each	£3.50	£1.60

What will it cost to buy 12 pens, 10 pencils, and 5 highlighters?

- A £9.40
- B £10.00
- C £10.80
- D £9.80
- E £11.20

10 Which item is best value for money per unit?

A Pen

B Pencil

C Highlighter

D Rubber

E All are equal

11 Which is the largest number?

0.45    $\frac{3}{4}$     $\frac{1}{3}$    0.5    $\frac{2}{5}$

A 0.45

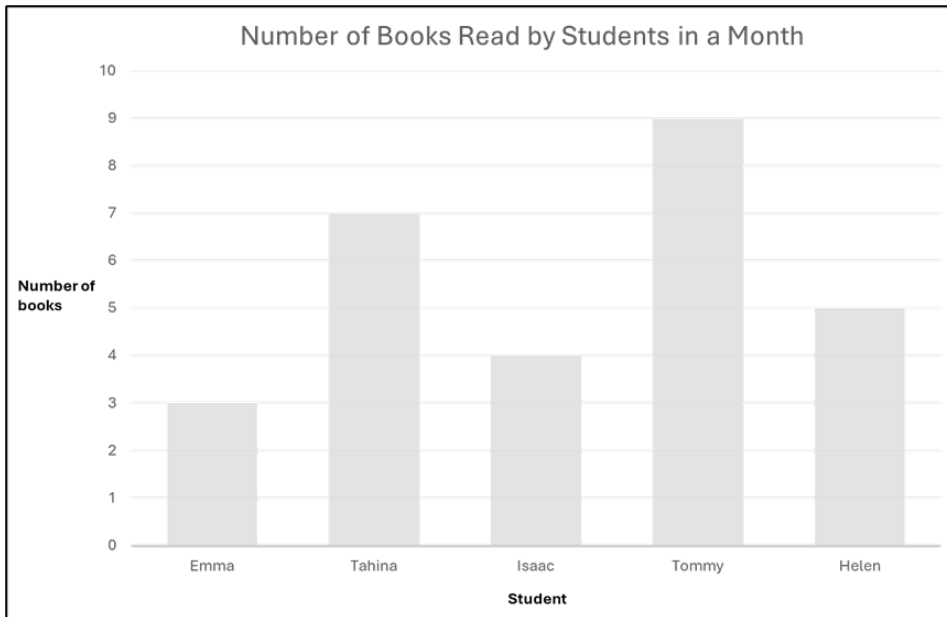
B  $\frac{3}{4}$

C  $\frac{1}{3}$

D 0.5

E  $\frac{2}{5}$

The graph below shows the number of books read in a month by a group of students. Use the graph to answer questions 12 – 14.



12 What is the range of the number of books read by the students?

- A 5
- B 6
- C 7
- D 8
- E 4

13 What is the total number of books read by the students?

- A 26
- B 27
- C 28
- D 29
- E 30

**14** How many more books did Tahina read than Isaac?

A 3

B 4

C 5

D 6

E 7

**15** Calculate  $\frac{3}{8} + \frac{1}{2} =$

A  $\frac{7}{8}$

B  $\frac{3}{4}$

C  $\frac{2}{3}$

D 1

E  $1\frac{1}{4}$

**16** Calculate  $6.8 \times 9.5 =$

A 65.2

B 63.5

C 62.2

D 60.8

E 64.6

17 Find 35% of 160.

A 48

B 56

C 8

D 16

E 36

18 Sophie wants to buy 3 books. The first book costs two pounds less than the second book, and the third book costs a pound more than the first book. The second book costs £8. How much does the third book cost?

A £1

B £7

C £3

D £8

E £9

19 A train travels at a speed of 60 km/h. How far will it travel in 3.5 hours?

A 210km

B 200km

C 180km

D 240km

E 150km

- 20** A piece of ribbon is 5 meters long. If it is cut into pieces that are each 25 cm long, how many pieces can be made?
- A 20
- B 10
- C 15
- D 25
- E 30
- 21** I think of a number.  
I double my number and then add 25.  
The final result is 93.  
What was the number I started with?
- A 44
- B 38
- C 40
- D 34
- E 48
- 22** Let  $A = 6$  and  $C = 10$ .  
If  $A^2 + B^2 = C^2$ , what is the value of  $B$ ?
- A 4
- B 5
- C 6
- D 7
- E 8

- 23** Mr. Green's class recorded the number of different genres of books they read in a month. The genre of books and the number of each read are shown below:

<b>Fiction</b>	<b>Non-Fiction</b>	<b>Mystery</b>	<b>Fantasy</b>
40	25	15	20

What percentage of the books were fiction?

- A 12%
  - B 50%
  - C 64%
  - D 40%
  - E 30%
- 24**  $\frac{5}{8}$  of a number N is 75. What is  $\frac{1}{4}$  of N?
- A 120
  - B 15
  - C 30
  - D 18
  - E 25

**25** The perimeter of a rectangle is 36 cm. If the length is 10 cm, what is the width?

A 8cm

B 6cm

C 4cm

D 3cm

E 5cm

**END OF MATHEMATICS TEST.**

