



Year 7 CAT4 Practice Questions

40 exam-style questions · 8 question types · answers included

How to use this booklet

- There are **five questions for each of the eight CAT4 question types**.
- In the real test, children have **well under a minute per question**. Try timing each set of five: aim for about **4 minutes**.
- Write answers on the **answer sheet** near the back, then check them with the **answers and explanations** on the last pages.
- Talk through any mistakes. Spotting the rule matters more than the score.

Battery	Question types
Verbal reasoning	1. Verbal classification · 2. Verbal analogies
Quantitative reasoning	3. Number analogies · 4. Number series
Non-verbal reasoning	5. Figure classification · 6. Figure matrices
Spatial ability	7. Paper folding · 8. Hidden shapes

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1. Verbal classification

The three words in bold go together in some way. Circle the word in brackets that goes with them.

1. **timid, shy, bashful**

bold

reserved

angry

proud

loud

2. **sapphire, emerald, ruby**

gold

silver

diamond

marble

copper

3. **sprint, dash, race**

stroll

hurry

wander

amble

linger

4. **violin, cello, harp**

drum

flute

guitar

trumpet

xylophone

5. **frugal, thrifty, economical**

generous

sparing

wealthy

lavish

greedy

2. Verbal analogies

The first two words are linked. Circle the word that completes the second pair in the same way.

1. **author → novel as composer → ?**

orchestra

symphony

piano

conductor

audience

2. **scarce → plentiful as ancient → ?**

old

modern

historic

ruined

early

3. **bee → hive as fox → ?**

den

nest

sty

stable

kennel

4. **thermometer → temperature as barometer → ?**

weather

pressure

wind

height

rain

5. **drought → water as famine → ?**

food

hunger

rain

crops

poverty

3. Number analogies

The same rule changes the first number into the second in every pair.
Circle the missing number.

1. [4 → 17] [6 → 37] [9 → ?]

(72) (80) (82) (85) (90)

2. [12 → 5] [20 → 9] [36 → ?]

(15) (17) (18) (19) (21)

3. [3 → 14] [5 → 22] [8 → ?]

(30) (32) (34) (36) (40)

4. [7 → 46] [4 → 13] [10 → ?]

(90) (94) (97) (100) (103)

5. [15 → 4] [27 → 8] [45 → ?]

(12) (13) (14) (15) (16)

4. Number series

Circle the number that comes next in the series.

1. 3, 7, 15, 31, 63, ?

(95) (125) (126) (127) (128)

2. 2, 9, 4, 11, 6, 13, ?

(7) (8) (10) (14) (15)

3. 2, 6, 12, 20, 30, ?

(36) (40) (42) (44) (48)

4. **100, 94, 89, 85, 82, ?**

- ☐ 78 ☐ 79 ☐ 80 ☐ 81 ☐ 83

5. **1, 1, 2, 3, 5, 8, ?**

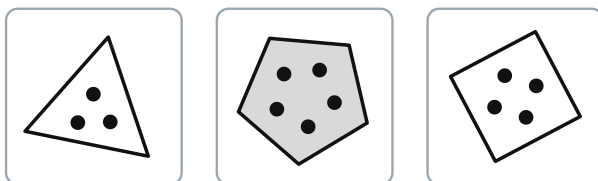
- ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 16

5. Figure classification

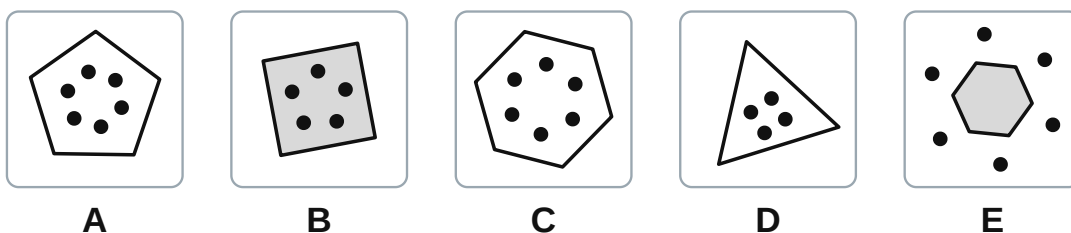
The three figures at the top are alike in some way. Which figure (A–E) goes with them?

Question 1

These three figures are alike in some way:

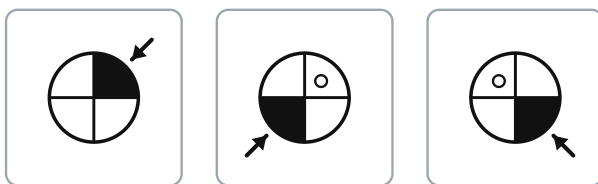


Which figure below goes with them?

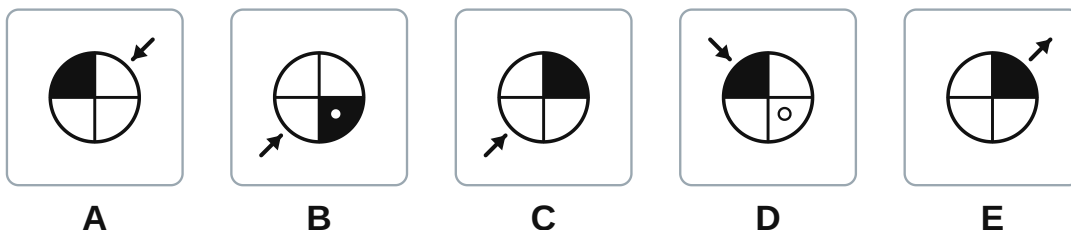


Question 2

These three figures are alike in some way:

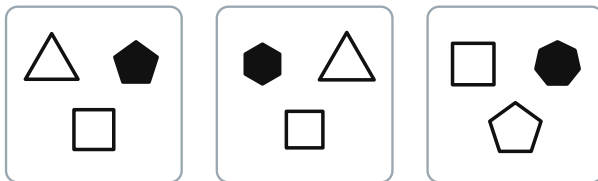


Which figure below goes with them?

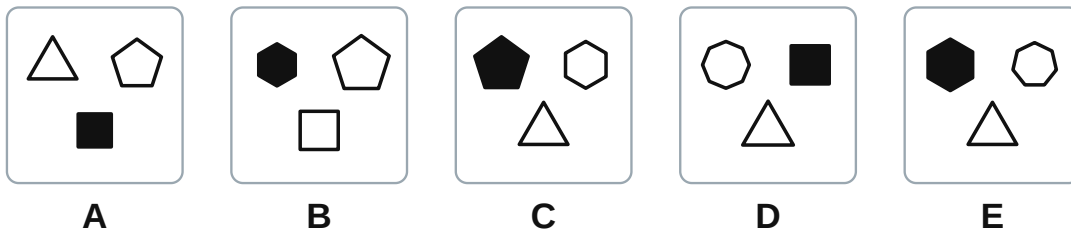


Question 3

These three figures are alike in some way:

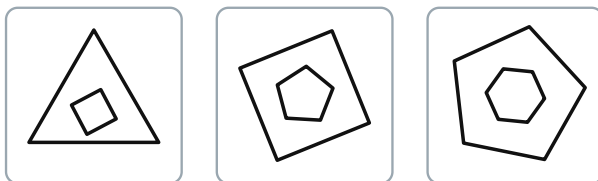


Which figure below goes with them?

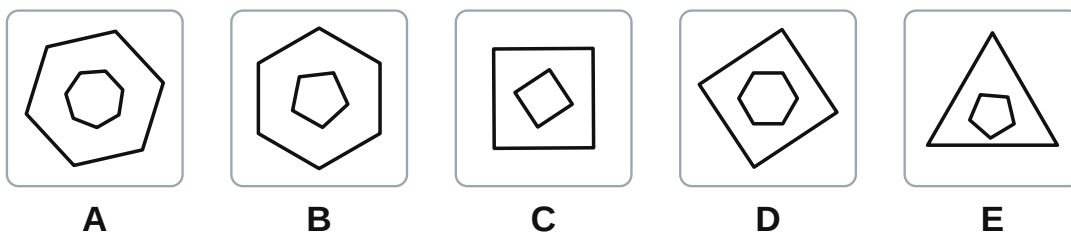


Question 4

These three figures are alike in some way:



Which figure below goes with them?

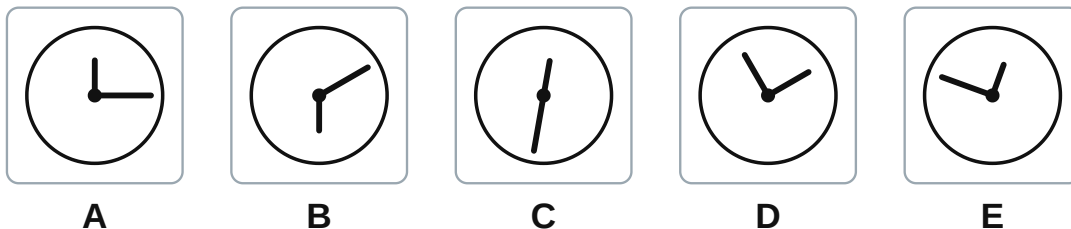


Question 5

These three figures are alike in some way:



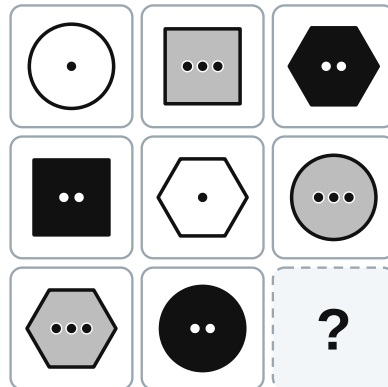
Which figure below goes with them?



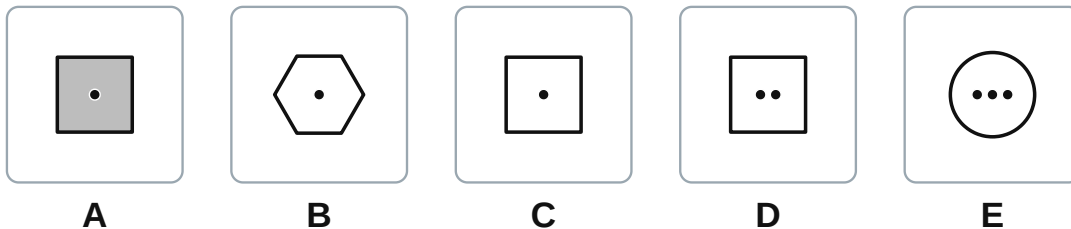
6. Figure matrices

Work out the rules across each row AND down each column. Which figure (A–E) completes the grid?

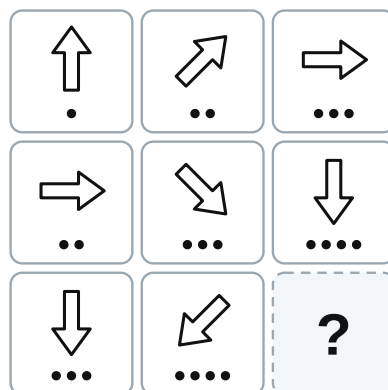
Question 1



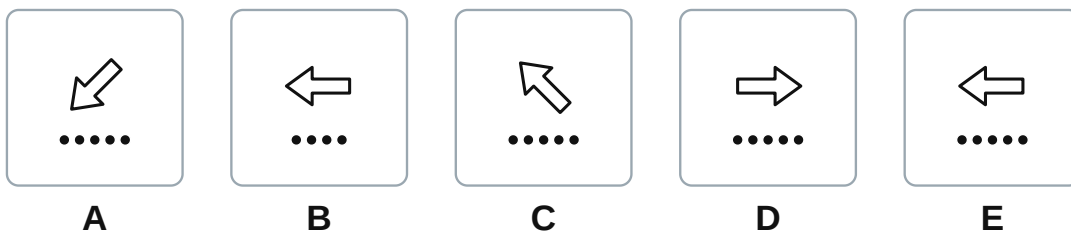
Which figure completes the grid?



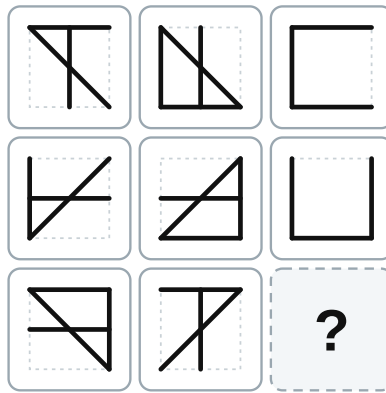
Question 2



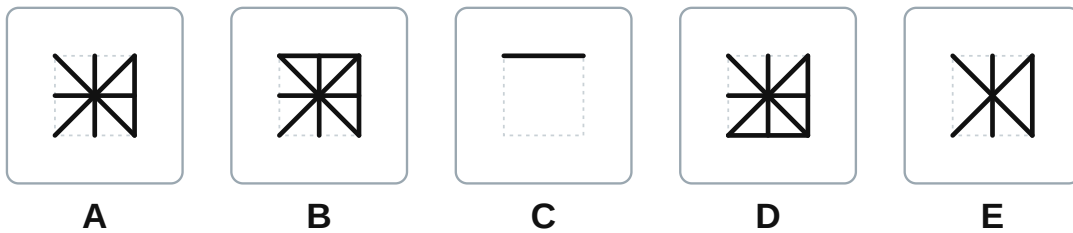
Which figure completes the grid?



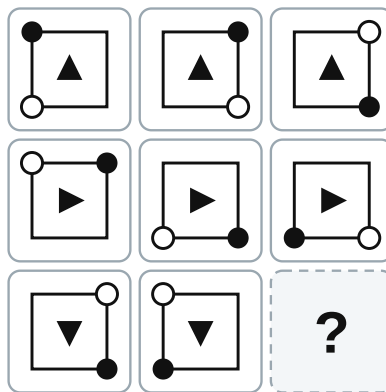
Question 3



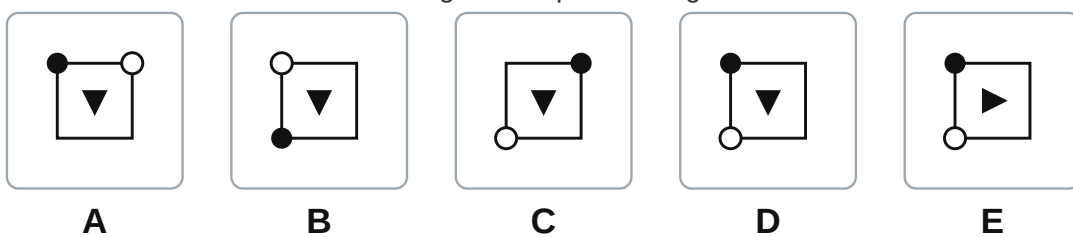
Which figure completes the grid?



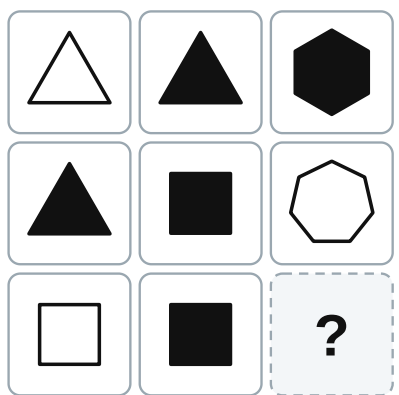
Question 4



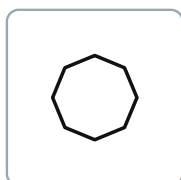
Which figure completes the grid?



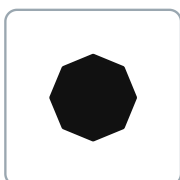
Question 5



Which figure completes the grid?



A



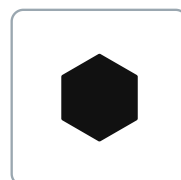
B



C



D



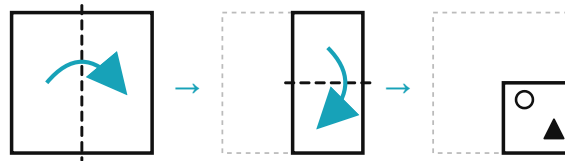
E

7. Figure analysis (paper folding)

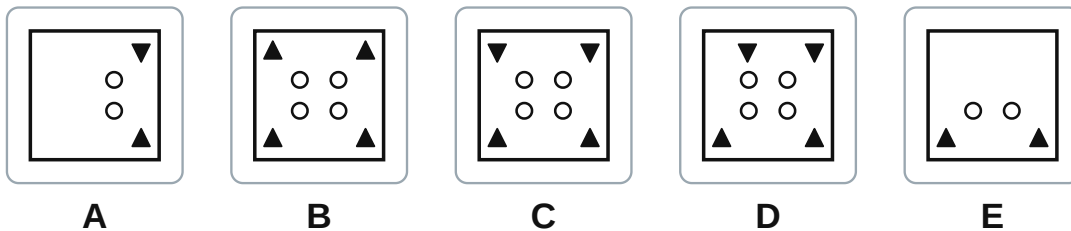
A square of paper is folded along the dashed line(s) and holes are punched through all the layers. Watch which way the triangles point. Which option (A–E) shows the paper unfolded?

Question 1

The paper is folded and the holes are punched through all layers:

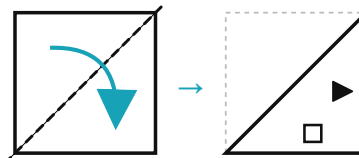


What does the paper look like when it is unfolded?

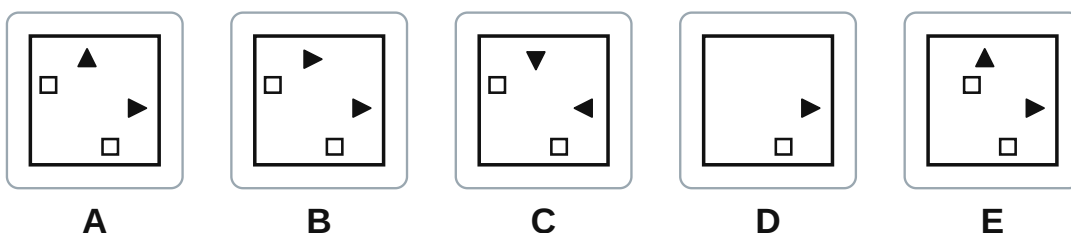


Question 2

The paper is folded and the holes are punched through all layers:

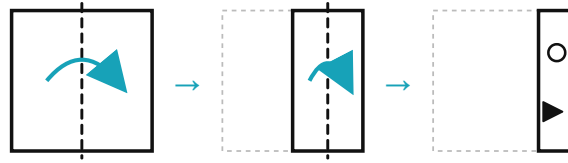


What does the paper look like when it is unfolded?

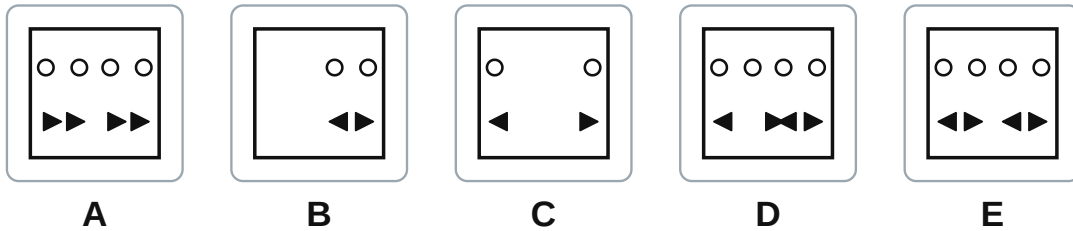


Question 3

The paper is folded and the holes are punched through all layers:

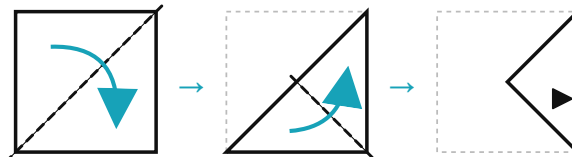


What does the paper look like when it is unfolded?

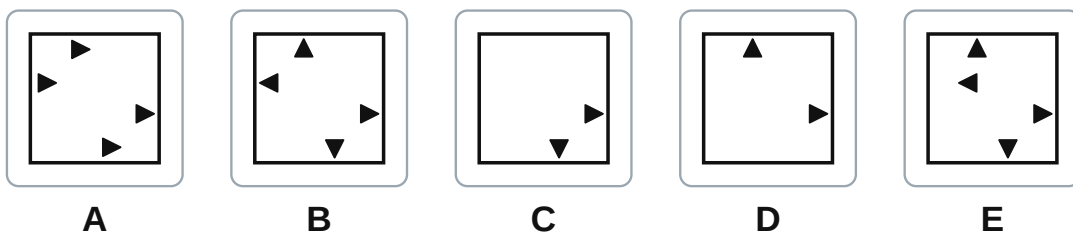


Question 4

The paper is folded and the holes are punched through all layers:

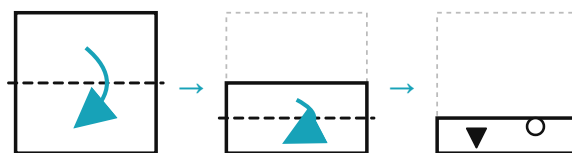


What does the paper look like when it is unfolded?

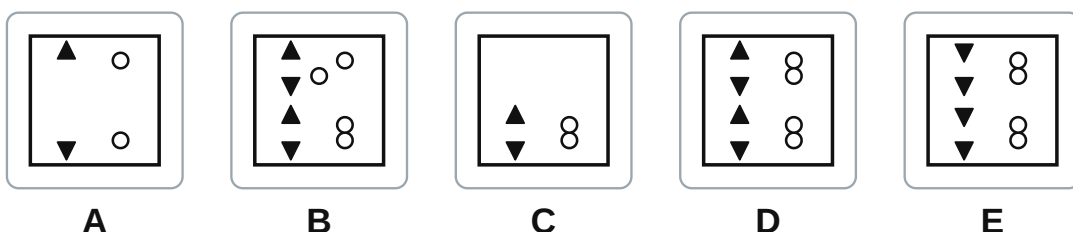


Question 5

The paper is folded and the holes are punched through all layers:



What does the paper look like when it is unfolded?

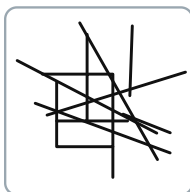
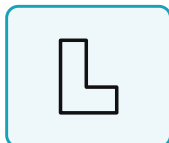


8. Figure recognition (hidden shapes)

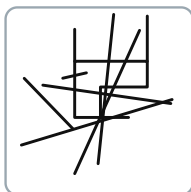
Find the shape in the blue box hidden in one of the figures A–E. It must be exactly the same size and the same way round, not turned or flipped.

Question 1

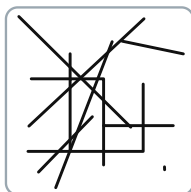
Find this shape hidden in one of the figures below.
It must be the same size and the same way round.



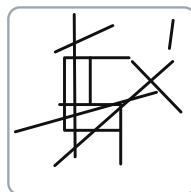
A



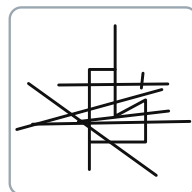
B



C



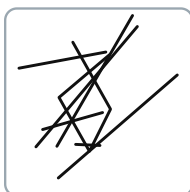
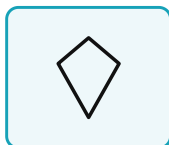
D



E

Question 2

Find this shape hidden in one of the figures below.
It must be the same size and the same way round.



A



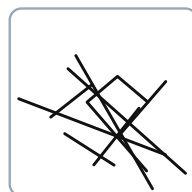
B



C



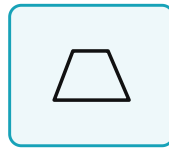
D



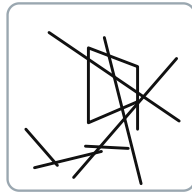
E

Question 3

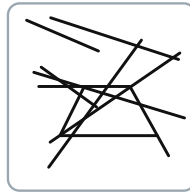
Find this shape hidden in one of the figures below.
It must be the same size and the same way round.



A



B



C



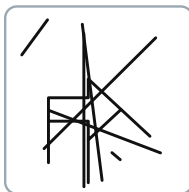
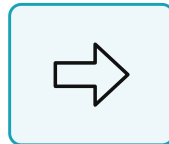
D



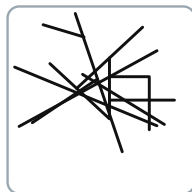
E

Question 4

Find this shape hidden in one of the figures below.
It must be the same size and the same way round.



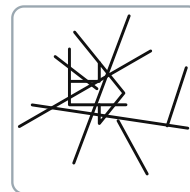
A



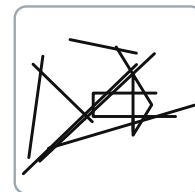
B



C



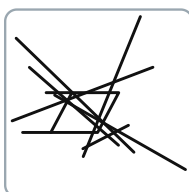
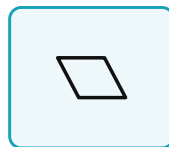
D



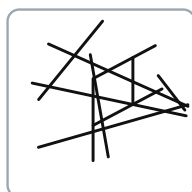
E

Question 5

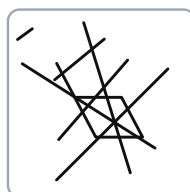
Find this shape hidden in one of the figures below.
It must be the same size and the same way round.



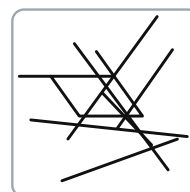
A



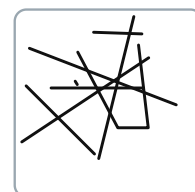
B



C



D



E



Answer sheet

Name: _____ Date: _____ Time taken: _____

Question type	1	2	3	4	5	Score
1. Verbal classification						/5
2. Verbal analogies						/5
3. Number analogies						/5
4. Number series						/5
5. Figure classification						/5
6. Figure matrices						/5
7. Figure analysis (paper folding)						/5
8. Figure recognition (hidden shapes)						/5
Total						/40

Answers and explanations

1. Verbal classification

1. **reserved**: all describe a quiet, nervous person
2. **diamond**: all are precious gemstones
3. **hurry**: all mean moving fast
4. **guitar**: all are string instruments
5. **sparing**: all mean careful with money

2. Verbal analogies

1. **symphony**: the work each person creates
2. **modern**: opposites
3. **den**: the animal's home
4. **pressure**: what the instrument measures
5. **food**: a severe shortage of something

3. Number analogies

1. **82**: square the number, then add 1
2. **17**: halve it, then subtract 1
3. **34**: multiply by 4, then add 2
4. **97**: square the number, then subtract 3
5. **14**: divide by 3, then subtract 1

4. Number series

1. **127**: double and add 1
2. **8**: two series take turns (2, 4, 6, 8 and 9, 11, 13)
3. **42**: add 4, 6, 8, 10, then 12
4. **80**: subtract 6, 5, 4, 3, then 2
5. **13**: add the two previous numbers

5. Figure classification

1. **C**: the number of dots inside equals the number of sides
2. **D**: the arrow points at the one shaded quarter
3. **B**: the shape with the most sides is the black one
4. **A**: the inner shape has exactly one more side than the outer shape
5. **E**: the hands make a right angle, with the shorter hand 90° clockwise from the longer one

6. Figure matrices

1. **C**: every row and column has one circle, one square and one hexagon; one, two and three dots; and one white, one grey and one black shape
2. **E**: the arrow turns 45° clockwise along each row and 90° clockwise down each column, and there is one more dot along each row and down each column
3. **A**: the third picture keeps only the lines that appear in exactly one of the first two pictures
4. **D**: along each row the black dot moves one corner clockwise and the white dot one corner anticlockwise; down each column the triangle turns 90° clockwise
5. **B**: sides in column 3 = sides in column 1 + sides in column 2 ($4 + 4 = 8$), and it is black only when exactly one of the first two is black

7. Figure analysis (paper folding)

1. **C**: two folds make four layers, and each triangle flips when it is mirrored across a fold
2. **A**: each hole is mirrored across the diagonal, so the triangle now points up
3. **E**: two folds the same way make four layers in a row, and the triangles alternate direction
4. **B**: undo the second fold, then the diagonal: four holes, each triangle pointing a different way
5. **D**: four layers in a column, and the triangles alternate direction

8. Figure recognition (hidden shapes)

1. **D** (A is flipped, B is turned, C is wider, E has a different corner)
2. **B** (the others are turned, stretched or have one corner moved)
3. **E** (A is flipped, B is turned, C is wider, D has a different corner)
4. **A** (B points the other way, C is turned, D is smaller, E has a different tip)
5. **C** (A slopes the other way, B is turned, D is wider, E has a different corner)

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