



BROAD HORIZON
— TUITION CENTRE —

Mock Exam 41

ANSWERS

Year 5

GL Practice Papers

Broad Horizon Tuition

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BROAD HORIZON
— TUITION CENTRE —

11+ Birmingham and Warwickshire

Practice Test 6

Paper A

Answers



Teacher's Guide

Mock Exams

1) Timing

Each section is individually timed. Timings are written on the teachers answer sheet (at the end of this guide).

Practice questions are completed outside of the time limit.

Students must get used to working out their **start and end times** and jotting them down on their exam paper, for every single section. Teachers must not tell students the start and end times, they need to work it out for themselves.

E.g.

Start 11:07

End 11:22

Might be a good idea to stop their time 30 seconds into the section and check who did and did not work out their start and end times (the vast majority won't have, or they will only do it for the first section and forget about it for the rest of the mock). This calculation must **only** be done once their time has started, because they're not allowed to write anything outside of the time limit.

Students **cannot** manage their time if they don't even know what time they're going to finish, and they cannot know what time they're going to finish if they don't know what time they started.

Every few minutes students should be **looking at the clock** so they know whether they're working too fast or too slow.

Also, for the really short sections, like NVR 3 minutes we don't advise they spend time writing down start and end times, since the time is so short, they can't afford to waste it, they should just look at the clock and know what time they're going to finish.

In the 11 plus exam, they won't have a digital timer on the board, they need to **get used to keeping an eye on the clock.**

The teacher should have their own digital timer which only they can see, maybe on their phone, or even on the tablet. Please turn off the TV screens so students can not use the digital time as they won't have this in their real exams.

Time limits are not so strict at this stage. It's their first mock exam. If they need a few extra minutes to finish, we can give them that. Timings will become stricter as the months go on with absolute strict timings around July/August.

You should **go straight into the mock exam** at the start of the lesson, do not start with marking homework, you'll run out of time on the mock.

Keep in mind it will take about 25/30 minutes to read out the answers and collect in the scores.

The mock exam itself will take about 90 minutes plus 30 minutes marking and collecting scores plus break in between, plus the extra time, this will easily take up the majority of the lesson.

Time management is a huge component of what students need to get used to with these mock exams.

Students are to be given a **time warning** when there is 1 minute remaining – this is the only time warning they are given.

2) Scores

Scores must be logged on the excel sheet.

The level of these mocks is very similar to the real 11 plus exam, and the students are about 10 months away from the 11 plus, so they're not expected to get really high scores right from the start. On the first mock exam, they're not expected to get higher than about 50%. If they get approx. 50% on the first mock they've done quite well. Anything below 40% would be a concern.

The next mock exam is at the end of January, with 1 at the end of February and another one at the end of March (after which they will have a mock exam almost every week). Their scores should typically go up by about 5-10% each month, eventually achieving about 75-85% around July/August.

Students must write down their score breakdown on their exam paper, as shown below:

Attempt 1

English

VR

Maths

NVR

TOTAL =

/ 142

%

3) Marking and Cheating

The pressure of achieving good scores **will** cause students to cheat whilst marking their work even if they seem like the type not to cheat. We've learnt over the years there isn't a type who cheat, when the pressure is on – they are all capable of it. Every year we see some of the most intelligent students, very capable, yet perform poorly on the exams because they cannot handle the pressure. Unfortunately, the pressure comes hand in hand with exams like the 11 plus and this is something we need students to get over as quickly as possible.

Anyone who gets over 45% their papers will be collected in and one of the admin team will re-mark their exam paper to double check them.

Please warn students about marking their work correctly before you start marking.

We need to get cheating out of their system very early on. We cannot help the students if we think they are doing really well, when the reality is otherwise.

All mock exams are self-marked in a different coloured pen (no peer marking, that has its own issues), so nobody should be seen holding a pencil whilst marking. They will often leave the boxes blank during the exam and then fill them in whilst you read out the answers and then tick them. Another common one is for them to write in multiple answers for 1 question and then tick them. Quite often they might only cheat on a few questions per section thinking it won't arouse suspicion, but those marks add up.

It might be a good idea to **collect in all the answering sheets** once you're done marking, and just have a quick flick through the pages.

4) Lesson Format

It is likely the entire lesson will be spent on the mock exam.

Students must complete the entire mock exam before we mark. We don't mark after each section like in a normal lesson; students need to **get used to the intensity** of sitting two-1-hour papers. They can have their break around their usual break time, however, please ensure it's at the end of a section and we're not stopping in the middle of a section to have a break.

They'll be given a 2nd blank answering sheet, which they take home and re-attempt the entire paper again from scratch – this is the homework on a mock exam week.

At the start of the following lesson, you'll mark their 2nd attempt, log their 2nd attempt scores on excel, and then go through the entire mock exam **question by question and explain anything they've got wrong**. (If there happens to be time left, you'll start the next lesson pack.)

5) Parent-Teacher Meetings

Meetings with parents will follow the first few mock exams, so we can **address any issues early on**.

We need to put plans in place for students who are struggling in specific areas, we can print extra content for them to cover at home, extra work for them to do during their holidays etc. Please let the manager know what work is needed and for which students so we can get this printed for them and **put a plan of action in place**.

Any plans put in place, please log them on **Trello** so the whole team is onboard and aware.

6) Students Answering Sheets

There is to be **no** working out on the answering sheet itself, answering sheets need to be clean. Working out on the exam paper only.

Students must rub out wrong answers and not cross them out.

Students must tick the answering sheet as they go along and not transfer their answers at the end, if they get used to transferring answers at the end and they run out of time, they could end up losing marks for entire sections.

Again, it might be a good idea to collect in all the answering sheets once you're done marking, and just have a quick flick through the pages.

7) Equipment

There is to be **no** use of **any** other equipment such as highlighters, pens, rulers, protractors etc.

Pencils and erasers only.



BROAD HORIZON
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Paper 1

English Comp 1 – 12 Minutes

Verbal Reasoning 1 - 8 Minutes

Maths 1 - 15 Minutes

Non -Verbal 1:

Subsection 1 – 3 Minutes

Subsection 2 – 3 Minutes

Spatial Subsection 1 – 3 Minutes

Paper 2

English Comp 1 – 12 Minutes

Verbal Reasoning 1 - 9 Minutes

Maths 1 - 15 Minutes

Non -Verbal 1:

Subsection 1 – 3 Minutes

Subsection 2 – 3 Minutes

Spatial Subsection 1 – 3 Minutes

English

Practice Section

- 1 E
- 2 A

Test

- 1 C
Jerome thought he 'had a beastly cold' (lines 2–3). A cold is a virus, and a cold is infectious. The word 'beastly' just means *unpleasant*.
- 2 E
There is a simile (a comparison using the word *like* or *as*). 'Our medical guide, philosopher, and friend is **like** the hero in a melodrama' (lines 8–9).
- 3 C
Jerome portrays them as theatrical (dramatic). Jerome suggests that doctors always claim that their patients are only one day away from it being impossible for them to be cured. This makes doctors sound rather dramatic, as we know logically that they will see patients who have not a lot wrong with them. They do not come across as life-savers because we do not believe that their patients' lives were in danger in the first place (Jerome thought he only had a cold).
- 4 A
The word 'yet' is being used as an adverb to mean *so far*. It is not being used as a conjunction to mean *but nevertheless*.
- 5 B
Providence' means *fate, destiny, etc.*

- 6 D**
You can see from the context that the phrase relates to enjoying doing very little: 'I should get up late', 'I should lie out in the garden' and 'I should recline there' (lines 17–21).
- 7 E**
The word 'dash' in this context is being used as a noun ('a dash') to mean *a small amount*. Jerome pictures himself in Buxton with just a small amount of illness – enough to make him interesting but, not enough to spoil his time there – so we can infer was not feeling that ill.
- 8 B**
He did not imagine himself reading uplifting (cheerful) fiction; he imagined himself reading 'novels with a **melancholy** [sad] ending' (line 20). We know he imagined himself listening to the sounds of nature: 'listening to the joyous song of the birds and the low rustling of the trees' (lines 23–24). We know he imagined himself having lie-ins: 'I should get up late' (line 2 17–18). We know he imagined himself staring at the sky: 'gazing into the deep blue of the firmament, watching the fleecy clouds floating' (line 21–22). The word 'firmament' means *sky*, which you should be able to work out from the colour blue and the clouds. We know he imagined attracting the attention of females: he imagined he would 'look wasted and interesting, so that all the pretty girls would sigh as they passed by' (lines 25–27).
- 9 E**
We do not have any personification (giving human characteristics to something non-human, such as *the flowers danced*). We have onomatopoeia: '**rustling** of the trees' (line 24) – the word 'rustling' mimics the sound it is describing. We have alliteration: '**f**leecy clouds **f**loating' (line 22). We have a simile: 'watching the fleecy clouds floating **like** white-sailed ships across its depths' (lines 22–23). And, we have repetition: 'with a dash of **illness** in it. Not too much **illness**, but just **illness** enough' (lines 16–17).
- 10 A**
The word 'listless' means *lifeless, limp*, etc. A hand that is lifeless is a hand that is not doing anything.

11 D

Jerome portrays illness in the third paragraph as idyllic (blissful). He makes it sound like he will be happy and enjoy himself while he is ill: 'I pictured to myself a glorious time' (line 15).

12 D

We can deduce that the Bath chair was a forerunner of the wheelchair. Jerome was 'in a Bath chair'. He would not be *in* a mobility scooter, walking frame or bicycle. An adult would not be in a pram. This leaves us with *wheelchair*, which makes sense because of the chair aspect.

13 B

Jerome makes it clear that the waters (water from a mineral spring) taste so disgusting that people would quickly get better so that they can stop drinking them.

14 E

He drinks alcohol to take away the taste of the waters. 'I adopted the plan of taking a stiff glass of brandy and water immediately on the top of them' (lines 36–38). For the brandy (alcohol) and water to be 'on the top of' the waters, he would have to drink the brandy and water after the waters. We know he drank alcohol *straight after* drinking the waters because of the word 'immediately'.

15 C

The tone is humorous. It is humorous to think of so much fuss being made about a man with a cold.

Verbal Reasoning

Practice Section

- 1 **idea** (potion → notion → idea)
- 2 **severe** (marsh → harsh → severe)
- 3 **g** (My dog likes *going* on *long* walks.)
- 4 **r** (Amazingly, he *broke* the *world* record.)

Test

- 1 **split**
Shall we **split** the portion?
Fair rhymes with *share*, which is a synonym of *split*.
- 2 **perfect**
Mary is **perfect** for the part.
Reveal rhymes with *ideal*, which is a synonym of *perfect*.
- 3 **Favour**
Favour your local shops or they will close.
Court rhymes with *support*, which is a synonym of *favour*.
- 4 **drowsy**
Bruno was **drowsy** after finishing his book.
Required rhymes with *tired*, which is a synonym of *drowsy*.
- 5 **buddies**
How many **buddies** do you want to invite?
Descends rhymes with *friends*, which is a synonym of *buddies*.
- 6 **speech**
The **speech** was longwinded and repetitive.
Hawk rhymes with *talk*, which is a synonym of *speech*.

7 originate

How did your passion for origami **originate**?

Spin rhymes with *begin*, which is a synonym of *originate*.

8 endeavour

Now he will **endeavour** to jump over two cars.

Unkempt rhymes with *attempt*, which is a synonym of *endeavour*.

9 I

The sea **looked** inviting with its **calm** waves.

The letter missing from both words is **I**.

10 m

The dog is **groomed** once a **month**.

The letter missing from both words is **m**.

11 a

Mother says we should **start eating** without her.

The letter missing from both words is **a**.

12 t

There are **fifty times** as many people as horses in the UK.

The letter missing from both words is **t**.

13 d

Ben **attends judo** club every Thursday.

The letter missing from both words is **d**.

14 i

The clothes will dry on the **line** in no **time**.

The letter missing from both words is **i**.

15 **r**

You can **park** on the adjacent **street**.

The letter missing from both words is **r**.

16 **t**

The minimum **height** for the rollercoaster is one **metre**.

The letter missing from both words is **t**.

Mathematics

Practice Section

- 1 C
- 2 A

Test

- 1 C The digit 3 is in the hundred thousands place.
[Estimation and Place Value]
- 2 A 50 g per half lemon means 100 g per whole lemon.
100 g multiplied by 4 lemons is 400 g.
[Measurements; Ratio and Proportion]
- 3 B The clock reads 22 minutes past 7 (7.22).
One-fifth of 60 is 12, so four-fifths is $4 \times 12 = 48$.
48 minutes after 7.22 is ten past eight (8.10).
[Measurements; Fractions, Decimals and Percentages]
- 4 D The completed shape will be a four-pointed star, which will have 4 lines of symmetry: horizontal, vertical and two diagonals.
[Reflection, Rotation and Symmetry]
- 5 C If the shorter piece is 25 cm, the longer piece is 50 cm.
So, each of the four pieces is $25 + 50 = 75$ cm long.
 $75 \text{ cm} \times 4 = 300 \text{ cm} = 3 \text{ m}$
[Measurements; Ratio and Proportion]

- 6 C** You can immediately rule out A (945) as it is too large.
 B (399) is incorrect as the hundreds digit is not square.
 Neither D (403) nor E (102) are multiples of 7.
 In 427, 7 is prime and 4 is square.
 427 is 7 more than 420, which is ten times larger than 42 (6×7), so it must be a multiple of 7.
 Hint: The divisibility rule for 7 is tricky, so it might be quicker to simply try dividing by 7. However, if a number is divisible by 7, the difference between twice the units digit and the remaining part of the number will be divisible by 7, e.g. for 427:
 $7 \times 2 = 14$
 $42 - 14 = 28$
 28 is divisible by 7, so 427 is divisible by 7.
 [Special Numbers; Factors and Multiples]
- 7 E** Two triangles fit together to make a square with sides of 3.5 cm.
 You can fit two such squares along the width of the rectangle and five along the length.
 This means you can fit $2 \times 5 = 10$ squares in the rectangle, which is $10 \times 2 = 20$ triangles.
 [Perimeter, Area and Volume]
- 8 C** $\frac{1}{4} = 0.25$
 $0.2 + 7.08 + 0.25 = 7.53$
 Hint: If you are not quick at mental arithmetic with decimals, it is safest to use a written method for this question to avoid easy-to-make mistakes.
 [Fractions, Decimals and Percentages]

- 9 D** Draw a vertical line up from 36 km on the 'Kilometres' axis.
From where it meets the diagonal graph line, draw a horizontal line to the 'Miles' axis.
This gives approximately 22 miles.

[Statistics]

- 10 D** If trial and error or inspection does not work, you can use algebra:

$$X = \frac{1}{3}Y$$

$$Y + \frac{1}{3}Y = 44$$

$$\frac{4}{3}Y = 44$$

$$\frac{1}{3}Y = 11$$

$$X = 11 \text{ and } Y = 33$$

$$33 - 11 = 22$$

[Algebra]

- 11 A** When the rectangle is translated, the new coordinates of its vertices will be: (4, 8), (4, 9), (7, 8) and (7, 9).

[Position and Direction]

- 12 D** Angle A is $360^\circ \div 3 = 120^\circ$

$\frac{3}{4}$ of 120° is $120^\circ \div 4 \times 3 = 90^\circ$, i.e. a right angle.

There are four right angles in a circle.

[Angles and Degrees]

13 A $16 + 8 + 4 + 22 + 14 = 64$ people visited the library from Monday to Friday.

Half of this number visited on Saturday, which is 32.

$$64 + 32 = 96$$

So, $100 - 96 = 4$ people visited the bookstore on Sunday.

[Statistics]

14 E Originally there are $5 + 4 + 3 = 12$ socks in the drawer. 2 red are taken out and 3 blue are put in, which is a net change of +1 sock.

Now there are 13 socks in the drawer and 4 are green.

Therefore, the probability of taking out a green sock is 4 out of 13

or $\frac{4}{13}$.

[Probability]

15 D Work backwards using inverse operations:

$$\frac{1}{5} \text{ of } 100 = 20$$

$$20 \div 4 = 5$$

$$5 + 7 = 12$$

$$12 \times 3 = 36$$

$$36 \div 2 = 18$$

[Operations]

Non-Verbal Reasoning

Subsection 1

Practice Section

- 1 **E** (Rotations of exactly the same figure.)
- 2 **C** (A total of 8 sides.)

Test

- 1 **D**
Both of the shapes on the left have horizontal striped shading.
- 2 **A**
Both of the shapes on the left have a solid outline and a dashed inner line.
- 3 **E**
Both figures on the left have three shapes stacked on top of each other, with the white rectangle at the bottom, the white square in the middle and the grey circle on top.
- 4 **B**
The two shapes in both figures on the left are a direct reflection of each other with a small gap between them.
- 5 **C**
In both figures on the left, there is one circle inside the large shape, one outside and one overlapping its edge. In the circle overlapping the edge, the region of overlap is shaded the same colour as the circle inside the main shape.
- 6 **C**
Both figures on the left are made from three identical shapes.
- 7 **D**
Both shapes on the left have six sides.
- 8 **E**
In both of the figures on the left, one of the shapes is a triangle.

Non-Verbal Reasoning

Subsection 2

Practice Section

- 1 A** (From left to right along each row, the arrows rotates 90° anticlockwise each time.)
- 2 B** (The arrow in each point of the star points in the opposite direction to the arrow in the adjoining inner triangle.)

Test

- 1 A**
The matrix has an overall pattern.
- 2 B**
The shape in each point of the star is a reflection of the two shapes in the adjoining inner triangle joined together.
- 3 A**
The white arrows in the points of the star rotate 120° clockwise each time, moving clockwise around the matrix. The grey arrows in the inner triangles rotate 60° clockwise each time, moving clockwise around the matrix.
- 4 C**
Think of the star as two large overlapping triangles. The matrix triangles containing the small triangles are positioned within one large triangle. Starting at the top and moving around this large triangle in a clockwise direction, there is one more small black triangle each time (working round the triangle formation in a clockwise direction). The matrix triangles containing the small circles are positioned within the other large triangle. Starting at the bottom and moving around this large triangle in a clockwise direction, there is one more small black circle each time (working round the triangle formation in a clockwise direction).

5 D

The white shape in each point of the star is a larger version of the grey shape in the opposite inner triangle.

6 C

The small shape and line in each point of the star match the shape and outline of the figure in the next inner triangle in an anticlockwise direction.

7 E

The figure in each point of the star is a reflection of the figure in the adjoining inner triangle but with the two types of shading reversed.

8 B

The shape in each point of the star matches the shape of the figure in the next inner triangle in a clockwise direction. The line inside the shape matches the line in the figure in the next inner triangle in an anticlockwise direction.

Spatial Reasoning

Practice Section

- 1 **A**
- 2 **B**

Test

- 1 **C** 14 (There are 2 hidden blocks.)
- 2 **A** 17 (There are 2 hidden blocks.)
- 3 **E** 14 (There are 2 hidden blocks.)
- 4 **D** 15 (There is 1 hidden block.)
- 5 **B** 15 (There is 1 hidden block.)
- 6 **C** 18 (There is 1 hidden block.)
- 7 **E** 15 (There are 4 hidden blocks.)
- 8 **D** 14 (There are 2 hidden blocks.)



BROAD HORIZON
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Practice Test 6

Paper B

Answers

English

Test

1 **D**

It is 'the middle of May' (line 3). Spring is from 20 March to 21 June. This means it is spring, but it cannot be A because May is not the start of spring. Summer comes after spring, so D is the best answer.

2 **B**

We can tell he was feeling relaxed from his body language. He was, for example, 'loll'd back in his seat' (lines 5–6). The word 'loll'd' tells us he was sitting in a relaxed manner.

3 **E**

The word 'felt' is being used as a noun to mean a type of thick, soft cloth.

4 **C**

We do not know whether Rebecca had money on her or not. We know she had something in her purse, but we do not know what it was. It could have been items of jewellery. Also, in some countries 'purse' means *handbag*, opening up the possibilities as to what could be in her purse. We know she had a large box on the coach with her because her mother put a 'trunk' (line 32) on the coach. We know she had flowers on the coach because her mother put 'a bouquet of lilacs beside her' (line 31). We know she had a parasol with her: she had a 'sun shade' (line 16). We know she had a covering for her head (a hat): she 'pushed back her funny little straw hat' (lines 15–16).

5 **D**

We can see that Rebecca is confident. Despite being young (maybe 'ten or eleven years old' (line 29)), she does not seem at all nervous about travelling without her mother: "'Goodbye, mother, don't worry; you know it isn't as if I hadn't travelled before.'" (lines 44–45)

- 6 E**
 'The day was as warm as midsummer, though it was only the middle of May, and Mr Jeremiah Cobb was favouring the horses as much as possible, yet never losing sight of the fact that he carried the mail' (lines 2–4). From the use of the word 'favouring', we can infer that Jeremiah was being considerate to the horses on the warm day, but we know he remained aware he was delivering mail. This means he would not have wanted to go too slowly (he wanted to get the mail to where it needed to be), but he also would not have wanted to go too fast (because of the horses in the heat). Furthermore, we can deduce they were not going really slowly because of the way Rebecca was being bounced around, and we can deduce they were not going as fast as possible because that surely would have been terrifying for Rebecca and the speed would have been referred to. There is no way of knowing how many horses were pulling the coach (often it was four).
- 7 B**
 Rebecca's mother tells Jeremiah she wants him to take Rebecca to her sisters' house (lines 34–35). Rebecca's mother's sisters are Rebecca's aunts.
- 8 B**
 Only 'existence' (the existence of Rebecca) and 'passenger' are nouns.
- 9 D**
 Notice that the question is about why she slid around and not why she bounced off the seat. 'She was so slender and so stiffly starched that she slid from space to space on the leather cushions' (lines 10–11). This tells us she slid around partly because she was very slim (i.e. she did not weigh much).
- 10 A**
 'Indeed, he had forgotten the very existence of this one unnoteworthy little passenger' (lines 22–23). The word 'unremarkable' means *not particularly interesting* and so does 'unnoteworthy'.
- 11 A**
 You would count money out with care when you are paying someone to make sure you give them the correct amount.

12 B

There is nothing to suggest Jeremiah put on airs and graces. If you put on airs and graces, you want to come across as posh. Jeremiah would not drop letters when speaking if he was trying to sound posh: 'Lord bless your soul, he knew **'em** as well as if he'd made **'em!**' (line 36) We can infer this language reflects the way Jeremiah spoke because it is not in the same voice the narrator uses. We know he transported letters on his coach: 'he carried the mail' (line 4). We can infer Rebecca was petite: 'She was so slender' (line 10) and 'she had an air of being small for her age' (line 30). We can infer Rebecca was sociable because her mother said: "'If she can get out anywhere and get with folks, or get anybody in to keep her company, she'll do it'" (lines 38–39). We can infer Jeremiah knew Mirandy and Jane well: 'Lord bless your soul, he knew **'em** as well as if he'd made **'em!**' (line 36) This means that he claimed to know them as well as he would if they were his own children.

13 C

Rebecca's mother comes across as critical (disapproving) of the things Rebecca says and does. The mother says: "'If she can get out anywhere and get with folks, or get anybody in to keep her company, she'll do it'" (lines 38–39). She does not say this in a proud way but as something that needs to be stopped. She is critical when Rebecca claims to have travelled before: she 'gave a short sardonic laugh' – if you describe someone as sardonic, you mean their attitude to people or things is humorous but rather critical – and she said "'She's been to Wareham and stayed overnight; that isn't much to be journey-proud on!'" (lines 46–48)

14 E

Capital letters can be used to show a character is shouting words or emphasising them. We can deduce Rebecca was emphasising the words and not shouting them, because we have: "**said** the child eagerly and wilfully" (line 49). There is no suggestion that she was angry and shouting the words.

15 C

The word 'sardonic' means *scornful*, *mocking*, etc. You should be able to work out the answer from the context. You can see that Rebecca's mother is ridiculing the idea that going to Wareham and staying there overnight is travelling: "'that isn't much to be journey-proud on!'" (lines 46–48).

Verbal Reasoning

Practice Section

- 1 **lead** and **ink** (A *pencil* writes with *lead* and a *pen* writes with *ink*.)
- 2 **mile** and **light** (The first letter of each word is removed.)
- 3 **an** and **them** (an + them = anthem)
- 4 **end** and **less** (end + less = endless)

Test

- 1 **rodent** and **cat**
A *rat* is a type of *rodent*, and a *tiger* is a type of *cat*.
- 2 **deal** and **loaf**
The word *deal* is an anagram of *lead*, and *loaf* is an anagram of *foal*.
- 3 **curt** and **tolerant**
The word *curt* is a synonym of *terse*, and *tolerant* is a synonym of *liberal*.
- 4 **flowers** and **singers**
You can have a *bouquet* of *flowers*, and you can have a *choir* of *singers*.
- 5 **5** and **10**
The digits of *41* sum to *5*, and the digits of *28* sum to *10*.
- 6 **higher** and **passed**
The word *higher* rhymes with *dire*, and *passed* rhymes with *fast*.
- 7 **deny** and **disregard**
The word *deny* is an antonym (opposite) of *concede*, and *disregard* is an antonym of *contemplate*.
- 8 **banana** and **egg**
You *peel* a *banana*, and you *crack* an *egg*.

9 **gods** and **end**
gods + end = godsend

10 **rest** and **art**
rest + art = restart

11 **bee** and **per**
bee + per = beeper

12 **steps** and **on**
steps + on = stepson

13 **me** and **ant**
me + ant = meant

14 **not** and **ice**
not + ice = notice

15 **so** and **up**
so + up = soup

16 **bet** and **ray**
bet + ray = betray

17 **E**
We are told that Abi has joined the reading club and one other club, so she has joined two clubs. Therefore, Statement E is true.
The other statements might be true, but they cannot be proved from the given information.

18 **A**
From the given information, we know that:
Mary has 6 marbles (1 yellow, 1 blue, 2 red, 2 gold).
Marie has 5 marbles (2 gold, 2 grey, 1 green).
Mari has 4 marbles (1 grey, 1 silver, 2 green).
Meena has 3 (2 yellow, 1 silver).
Therefore, Mary has the most marbles.

Mathematics

Test

- 1 A** The triangle has been divided into six equal regions.
Two-sixths are shaded, which is the same as one-third.
[Fractions, Decimals and Percentages]
- 2 D** $12 \times 9 = 108$
 $108 - 18 = 90$
 $90 \div 2 = 45$
[Algebra]
- 3 C** From the graph, the puppy is 5 kg in Month 5 and 7.9 kg in Month 8.
 $7.9 - 5 = 2.9$ kg
[Statistics]
- 4 D** For 150 students and 20 teachers, 10 coaches are needed.
 $10 \times \text{£}150 = \text{£}1500$
150 students is four lots of 30.
 $4 \times \text{£}50 = \text{£}200$
 $20 \times \text{£}10 = \text{£}200$
 $\text{£}1500 + \text{£}200 + \text{£}200 = \text{£}1900$
[Money]
- 5 B** 5 sour swizzlers + 2 pink phizzers = 7 sweets
 $112 \div 7 = 16$
 $16 \times 2 = 32$ pink phizzers in total
[Ratio and Proportion]

- 6 D** Consecutive means one after the other.
 $81 = 9^2$, $100 = 10^2$ and $121 = 11^2$
[Special Numbers; Factors and Multiples]
- 7 C** $60 \text{ cm} = 0.6 \text{ m}$
 $0.6 \times 7 = 4.2$
 $4.2 \times 2 = 8.4$
 $3 \times 0.6 = 1.8$
 $8.4 + 1.8 = 10.2 \text{ m}^2$
[Perimeter, Area and Volume]
- 8 E** To find the number halfway between two numbers, add them together and divide by two.
 $57 + (-25) = 52 - 25 = 32$
 $32 \div 2 = 16^\circ\text{C}$
[Measurements]
- 9 C** From the diagram, the jug contains 80 ml (each long line on the scale is 25 ml and each short line is 5 ml).
 $150 - 80 = 70 \text{ ml}$
[Measurements]
- 10 E** 7 poodles
 $3 \times 7 = 21$ schnauzers
 $21 \times 2 = 42$ terriers
 $42 \div 6 = 7$ Pomeranians.
 $7 + 21 + 42 + 7 = 77$ dogs
[Operations]

11 B Two-thirds of 450 is 300.

$$65\% = 50\% + 10\% + 5\%$$

$$50\% \text{ of } 300 = 150$$

$$10\% \text{ of } 300 = 30$$

$$5\% \text{ of } 300 = 15$$

$$150 + 30 + 15 = 195$$

[Fractions, Decimals and Percentages]

12 A The quickest train is the 19:01, which takes 30 minutes.

The slowest train is the 17:45, which takes 45 minutes.

The difference is 15 minutes (quarter of an hour.)

[Measurements]

13 E $500 - 28 = 472$ of the first bag were undamaged.

$250 - 32 = 218$ of the second bag were undamaged.

$472 + 218 = 690$ of the 750 hairpins were undamaged.

This is the same as $\frac{69}{75}$.

Divide both numerator and denominator by 3 to give $\frac{23}{25}$.

To make this a fraction of 100 (and therefore a percentage), multiply both top and bottom by 4.

$$\frac{23}{25} = 92\%$$

[Fractions, Decimals and Percentages]

14 B The first turn takes Ted to SE, then he turns to face NW.

One-eighth of a turn is half of a quarter, which takes him to N.

[Position and Direction]

- 15 D** A is not correct, as only 62 horses are in this weight class. The total of all the other classes is much larger.
- B might not be correct, as we only have data for 'some' of the weight classes.
- C might not be correct, as within each weight class the individual weights could be any values, including decimal fractions.
- D is correct, as $62 + 21 = 83$, which is the same as the total of the other three weight classes ($32 + 26 + 25 = 83$).
- E might not be correct, as we only have data for 'some' of the weight classes.

[Statistics]

Non-Verbal Reasoning

Subsection 1

Practice Section

- 1 **C** (The two parts of the figure join together.)
- 2 **E** (The small black shape moves inside the large white shape.)

Test

- 1 **C**
The shape rotates 90° clockwise.
- 2 **D**
The figure flips on the horizontal and the shading is reversed.
- 3 **A**
The two shapes in the figure swap sizes and positions.
- 4 **B**
The large outer shape rotates 90° anticlockwise and the small inner shape rotates 90° clockwise.
- 5 **C**
The upper shapes and lower shape swap shading. The lower shape rotates 135° anticlockwise and enlarges in size, and then the two upper shapes move inside it.
- 6 **D**
One of the small shapes in the middle disappears. The rest move inside the lower shape and turn grey. The lower shapes outline changes to match the line in the original figure.
- 7 **B**
The larger upper shape moves down. The small upper shape enlarges, flips vertically and moves down and to the right. The large lower shape rotates 45° and moves up and to the right. The small lower shape enlarges and moves up.

8 E

The middle right shape enlarges and takes its line style from the lower horizontal line. The middle left shape moves inside it and takes its shading from the upper rectangle.

Non-Verbal Reasoning

Subsection 2

Practice Section

- 1 **A** (The figure rotates 90° clockwise each time.)
- 2 **C** (The large shape loses one side each time; the circle rotates to the next corner clockwise, alternating between black and white.)

Test

- 1 **E**
From left to right, the white circle reduces in size and the grey square increases in size.
- 2 **A**
From left to right, the figure rotates 90° clockwise each time and the shading of the square follows a repeating pattern: black, crossed, white, and repeat.
- 3 **C**
From left to right, one more arrow is added each time and they rotate 90° anticlockwise. The arrowhead follows a repeating pattern: black, white, V-shaped, and repeat.
- 4 **B**
From left to right, one hexagon changes to a square each time.
- 5 **B**
From left to right, the shape rotates 135° clockwise each time. The shading follows a repeating pattern: stripes, grey, dots, and repeat.
- 6 **C**
From left to right, the one more side of the hexagon changes to bold working in a clockwise direction. The circle moves to the next side in an anticlockwise direction.

7 E

From left to right, the black square moves from left to right across the box; the white circle moves from the bottom to the top; and the grey hexagon moves to the next corner of the box in an anticlockwise direction.

8 D

From left to right, the three shapes move one position outwards each time, with the outermost shape moving to the centre.

Spatial Reasoning

Practice Section

1 B

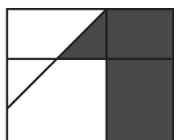
2 C

Test

1 B



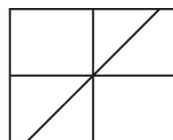
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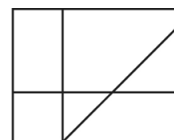
B



C



D



E



2 D



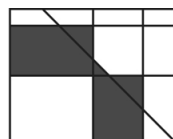
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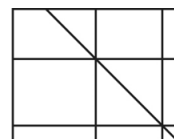
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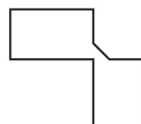
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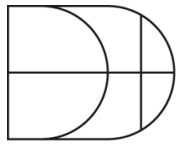
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E



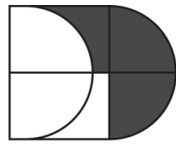
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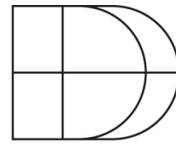
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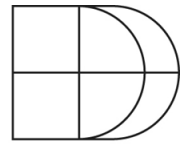
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C



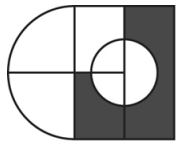
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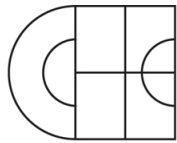
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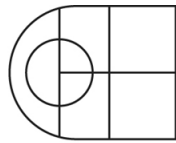
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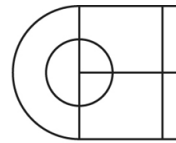
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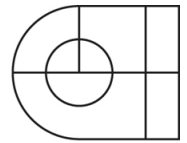
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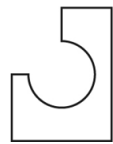
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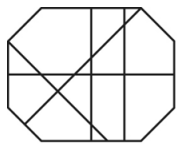
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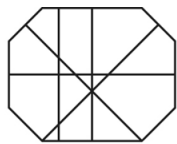
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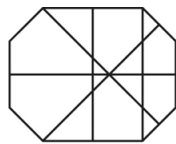
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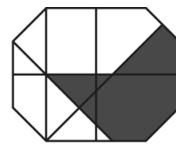
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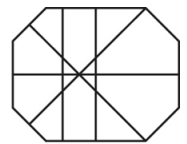
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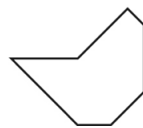
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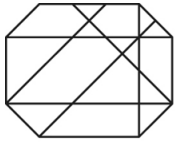
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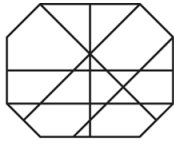
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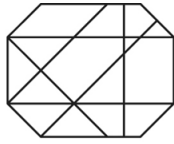
6 E



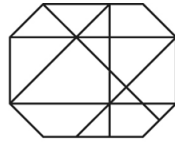
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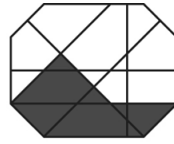
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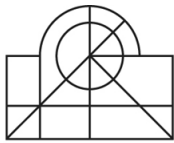
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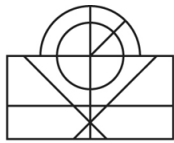
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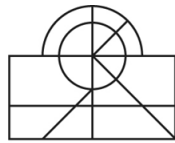
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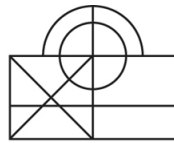
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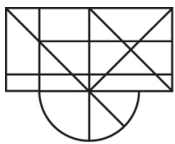
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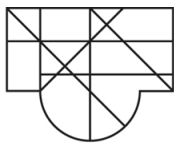
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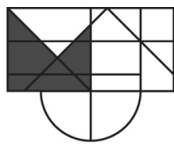
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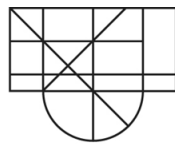
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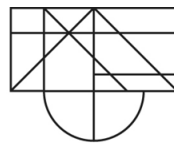
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