



BROAD HORIZON
— T U I T I O N —

11+ Tuition

Year 4

Mock Exam 01

Week 47

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.

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.

Set A — Paper 1

Section 1: Verbal Reasoning — Comprehension

1) **B**

Lines 2-3 state that there are "children dressed up as monsters" on Halloween, which is one of the reasons the writer gives for it being the spookiest night of the year.

2) **A**

Lines 13 states that the Otherworld was said to be "the realm of spirits". A 'realm' means a kingdom, so the Celts believed that this is where the spirits lived.

3) **D**

Lines 15-16 state that the Celts "may have sacrificed cattle and crops" to "please the spirits".

4) **B**

Lines 17-20 state that one of the activities "on this night" (31st October) was "choosing a nut to roast on the fire".

5) **D**

Line 11 states that Samhain was celebrated on "31st October", and line 25 states that "All Hallows' Day" is "celebrated on 1st November", which is the day after.

6) **B**

Lines 23-24 state that "Celtic traditions like Samhain began to fall out of favour", which means that Celtic traditions weren't as popular.

7) **B**

Line 34 states that the people who answered their doors "asked the soulers to pray for the souls of their relatives", not that the soulers themselves asked people to pray for them.

8) **C**

Lines 35-36 state that the "tradition of souling" moved away from its roots and "evolved into the trick-or-treating that is often practised on Halloween today."

9) **A**

Lines 38-40 state that "Halloween's popularity in the British Isles dwindled" as celebrations like "Guy Fawkes Night" were introduced.

10) **D**

Line 42 states that at first "Halloween was only celebrated in some Southern United States".

11) **D**

Lines 43-45 state that "Halloween's popularity increased in the United States" when "a large number of Irish and Scottish immigrants moved there."

12) **B**

Line 36 states that "trick-or-treating" is "often practised on Halloween today", and lines 50-51 state that having "houses covered with gruesome decorations" is also currently a "popular part" of Halloween.

13) **C**

Lines 55-56 state that "In 2017, it was estimated that £25 million would be spent in Britain on pumpkin carving alone."

14) **C**

Lines 45-47 describe popular Halloween activities in the United States in the 1900s, line 50 states that "horror films" are popular during Halloween, and lines 51-53 state that "Halloween in the UK" has become "increasingly similar to the celebrations in the United States." However, the amount spent on Halloween costumes is not mentioned.

15) **B**

In lines 56-57, the writer states that Halloween has become "larger and more spectacular", and that it is "hard to imagine" the "simpler beginnings" of Halloween. This suggests that they think it has changed a lot since it was first celebrated.

16) **A**

"numerous" means 'several' or 'various'.

17) **B**

"brought about" means 'caused' or 'led to', so the phrase means that new traditions started.

18) **A**

"evolved" means 'developed or changed over time'.

19) **C**

"dwindled" means 'became smaller' or 'declined'.

20) **D**

"gruesome" means 'frightening' or 'horrible'.

Section 2: Verbal Reasoning — Synonyms

1) **sip**

Both words mean 'to take in liquid'.

2) **healthy**

Both words mean 'in good physical condition'.

3) **complain**

Both words mean 'to moan'.

4) **finish**

Both words mean 'to conclude'.

5) **celebrated**

Both words mean 'well known'.

6) **tasty**

Both words mean 'having a pleasant flavour'.

7) **chat**

Both words mean 'a talk'.

8) **loot**

Both words mean 'to take without permission'.

9) **shatter**

Both words mean 'to separate into pieces'.

10) **peaceful**

Both words mean 'tranquil'.

11) **sickness**

Both words mean 'ill health'.

12) **clutch**

Both words mean 'to take and hold something firmly'.

13) **shut**

Both words mean 'to cover or seal'.

14) **student**

Both words mean 'someone who learns through studying'.

15) **complicated**

Both words mean 'difficult'.

16) **fix**

Both words mean 'to mend'.

Section 3: Verbal Reasoning — Antonyms

- 1) **fake**
'real' means 'genuine', whereas 'fake' means 'false'.
- 2) **hilly**
'flat' means 'level and smooth', whereas 'hilly' means 'bumpy and uneven'.
- 3) **guilty**
'innocent' means 'not having committed a wrongdoing', whereas 'guilty' means 'having committed a wrongdoing'.
- 4) **bought**
'sold' means 'gave away in exchange for money', whereas 'bought' means 'received in exchange for money'.
- 5) **leave**
'arrive' means 'to come to a place', whereas 'leave' means 'to go away from a place'.
- 6) **question**
'answer' means 'a solution or response', whereas 'question' means 'a problem or query'.
- 7) **truth**
'lie' means 'something that is false', whereas 'truth' means 'something that is correct'.
- 8) **fresh**
'rotten' means 'decayed', whereas 'fresh' means 'newly produced'.
- 9) **messy**
'tidy' means 'orderly', whereas 'messy' means 'disorderly'.
- 10) **straight**
'bent' means 'curved or twisted', whereas 'straight' means 'not having curves or twists'.
- 11) **danger**
'safety' means 'protection from harm', whereas 'danger' means 'the possibility of harm'.
- 12) **entrance**
'exit' means 'the way out', whereas 'entrance' means 'the way in'.
- 13) **whole**
'piece' means 'a part', whereas 'whole' means 'the entirety'.
- 14) **reject**
'accept' means 'to allow', whereas 'reject' means 'to deny'.

Section 4: Verbal Reasoning — Related Words

- 1) **medal**
All the words are examples of prizes.
- 2) **Italian**
All the words are examples of languages.
- 3) **Oxford**
All the words are names of English cities.
- 4) **freezing**
All the words mean 'cold'.
- 5) **choir**
All the words are examples of musical groups.
- 6) **superb**
All the words mean 'really good'.

- 7) **pie**
All the words are examples of main meals.
- 8) **haddock**
All the words are types of fish.
- 9) **thumb**
All the words are parts of a hand.
- 10) **coop**
All the words are examples of animal enclosures.
- 11) **mustard**
All the words are examples of savoury condiments.
- 12) **Africa**
All the words are continents on Earth.
- 13) **clown**
All the words are types of people who make others laugh.
- 14) **journey**
All the words refer to a period of travel.
- 15) **decade**
All the words are measurements of time.

Section 5: Numerical Reasoning

- 1) **6**
 $4 \times 6 = 24$, so $24 \div 4 = 6$.
- 2) **4**
Saleem flipped the coin $8 + 3 = 11$ times.
Clive flipped the coin $6 + 9 = 15$ times.
So Saleem flipped the coin $15 - 11 = 4$ fewer times than Clive.
- 3) **1476**
In figures, one thousand is 1000, four hundred is 400 and seventy-six is 76. Adding them gives 1476.
- 4) **10 cm²**
There are 9 whole squares shaded and 2 half squares shaded, so the area of the shape is $9 + \frac{1}{2} + \frac{1}{2} = 10$ cm².
- 5) **scalene**
Go through each option to decide which is the right answer. All equilateral and isosceles triangles have at least two equal sides (equilateral triangles have three). Right-angled triangles have one 90° angle, but the other two angles could be the same (45°), which would give an isosceles triangle (see above). A scalene triangle has three different side lengths, so Emlyn's triangle cannot be scalene.
- 6) **5**
Each full symbol on the pictogram = 2 pins.
Each half symbol = $2 \div 2 = 1$ pin.
For Evan, five whole symbols = $5 \times 2 = 10$ pins.
For Nilesh, two whole symbols = $2 \times 2 = 4$ pins and one half symbol = 1 pin, so Nilesh knocked down $4 + 1 = 5$ pins.
So Evan knocked down $10 - 5 = 5$ more pins than Nilesh.
- 7) **0.27**
In figures, two tenths is 0.2 and seven hundredths is 0.07.
Adding them gives 0.27.
- 8) **8632**
To make the largest number possible, put the digits in order with the largest first, giving 8632.

9) -1

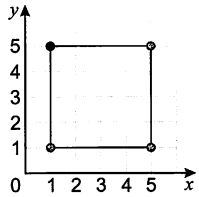
Each term is decreasing by 3 ($11 - 8 = 3$, $8 - 5 = 3$ and $5 - 2 = 3$). So the number that goes in the box must be $2 - 3 = -1$.

10) 15:47

The time shown on the clock is forty-seven minutes past three, so is 3:47. Latisha is having afternoon tea, so the time must be 3:47 pm. Add 12 to 3 to get the time on the 24-hour clock, which is 15:47.

11) (1, 5)

Draw the final corner of the square as shown below. Reading off the coordinates of this corner gives (1, 5).



12) 2250 g

The pointer is one quarter of the way between 2 kg and 3 kg, so the weight in kg is 2.25 kg. $1 \text{ kg} = 1000 \text{ g}$, so the weight in grams is $2.25 \times 1000 = 2250 \text{ g}$.

13) 0.75

$\frac{3}{4}$ is the same as 0.75.

14) £9.75

To find out how much Katya has after buying the book, partition £4.25 into £4 and 25p, and subtract each from £12:

$$£12 - £4 = £8 \text{ and } £8 - 25p = £7.75.$$

Then add on the £2 her grandad gave her: $£7.75 + £2 = £9.75$.

15) 216

Reuel has 72×3 stamps. To do this multiplication, partition 72 into 70 and 2, and multiply each part separately by 3.

For 70×3 , you know $7 \times 3 = 21$. 70 is 10 times bigger than 7, so $70 \times 3 = 21 \times 10 = 210$.

$$2 \times 3 = 6, \text{ so } 72 \times 3 = 210 + 6 = 216.$$

16) 6

9 (3×3), 18 (6×3) and 6 (2×3) are multiples of 3.

4 and 6 are factors of 24, since $4 \times 6 = 24$.

The '?' is in the part of the diagram where the circles overlap, so it must represent a number that's both a multiple of 3 and a factor of 24. So 6 is the only option that can replace the '?'.

Section 6: Non-Verbal Reasoning

1) D

Option A is the wrong shape. Option B has the wrong shading. Option C is a 180 degree rotation.

2) C

Option A has the wrong shading. Option B is a 180 degree rotation. In option D, one of the small black squares is in the wrong place.

3) B

Option A is a 135 degree clockwise rotation. In option C, the shape at the front has not been reflected. In option D, the shape at the front is the wrong shape.

4) D

In option A, the line with the circle has not been reflected. In option B, the bars have not been reflected and they have the wrong shading. Option C has the wrong shading.

5) C

In each series square, the triangle rotates 180 degrees. The shading of the triangle alternates between white and black.

6) A

In each series square, the triangle at the front moves to the back. The shading of the triangles stays the same.

7) A

In each series square, one candle disappears and the remaining candles rotate 90 degrees clockwise.

8) C

In each series square, the shaded rectangles alternate between grey and black. One more small white rectangle is added onto each of the large rectangles on either side of the figure.

9) D

In each series square, the black star moves one place along the line, working from the bottom end of the line to the top end. The white star moves one place along the line, working from the top end of the line to the bottom end.

10) A

All figures must contain two identical shapes on the same side of a line. Both shapes must have the same shading.

11) D

In all figures, the shape on the left must have a solid outline. The shape on the right must have a dashed outline and be a squashed version of the shape on the left.

12) D

In all figures, all of the frog's feet must be the same shape as the shape on its chest. The shading of the frog's two middle feet must match the shading of the frog's eyes.

13) B

In all figures, the shape on the right of the grid must have one more side than the shape on the left.

14) C

All figures must have three shapes that are identical apart from shading. The shape at the front must be pointing left, the shape in the middle must be pointing up, and the shape at the back must be pointing right.

Set A — Paper 2

Section 1: Numerical Reasoning

1 a) Angles Q and S are acute

An acute angle is less than 90° and an obtuse angle is bigger than 90° but less than 180° . Q and S are acute, P is a right angle and R is obtuse, so only the fourth option is correct.

1 b) P

A right angle is 90° .

2 a) 4

Using the times tables you know that $12 \times 4 = 48$, so Sundeep plants $48 \div 12 = 4$ seeds in each pot.

2 b) 4

$$48 = 50 - 2, \text{ so } 3 \times 48 = 50 \times 3 - 2 \times 3 = 150 - 6 = 144.$$

There aren't quite enough seeds in 3 packs, so Carla will need to buy 4 packs.

3 a) 25

There are 12 marks for right-handed boys and 13 marks for right-handed girls. $12 + 13 = 25$.

3 b) $\frac{4}{16}$

There are 4 marks for left-handed boys and 12 marks for right-handed boys, so there are $4 + 12 = 16$ boys in total. As a fraction, the number of boys that are left-handed is $\frac{4}{16}$.

4 a) 69

The first two odd numbers in the list are 3 and 23. To multiply these numbers, partition 23 into 20 and 3, and multiply each part separately: $20 \times 3 = 60$, $3 \times 3 = 9$, so $23 \times 3 = 60 + 9 = 69$.

4 b) 105

45 (5×9) and 60 (5×12) are the only multiples of 5 in the list. $45 + 60 = 105$.

4 c) $60 - 32 > 45 - 23$

'>' means more than. $60 - 32 = 28$ and $45 - 23 = 22$. $28 > 22$, so $60 - 32 > 45 - 23$ is true.

5 a) 456

Partition 912 into 900 and 12, and divide each part by 2: $900 \div 2 = 450$, $12 \div 2 = 6$, so $912 \div 2 = 450 + 6 = 456$.

5 b) 1432

First add the extra 640 books to 912. Partition 640 into 600 and 40 and add them separately: $912 + 600 = 1512$ and $1512 + 40 = 1552$.

You then need to subtract the books donated.

Partition 120 into 100 and 20 and subtract each part separately: $1552 - 100 = 1452$ and $1452 - 20 = 1432$.

6 a) white

'White' is the third highest bar on the chart.

6 b) 34

Add up the number of cars that are not blue:

$$11 + 10 + 4 + 9 = 34 \text{ cars.}$$

6 c) £35.00

There are $4 + 10 = 14$ red and black cars, so you need to multiply £2.50 by 14: $\text{£}2.50 \times 10 = \text{£}25$ and $\text{£}2.50 \times 4 = \text{£}10$, so $\text{£}2.50 \times 14 = \text{£}25 + \text{£}10 = \text{£}35$.

7 a) 3

A regular polygon has equal side lengths. The first shape (square), second shape (regular pentagon) and the fifth shape (regular hexagon) have equal side lengths. The third shape (irregular hexagon) and fourth shape (isosceles triangle) do not.

7 b) $\frac{2}{5}$

A hexagon has 6 sides, so there are 2 hexagons (third and fifth shapes). So 2 out of 5 or $\frac{2}{5}$ of the shapes are hexagons.

8 a) 8:55 am

The time shown on the clock is 5 minutes past 7 and you know the time is in the morning, so it's 7:05 am. Counting on 1 hour and 50 minutes from this time gives you the time Rachel finished her run. 1 hour later than 7:05 am is 8:05 am and 50 minutes later than 8:05 am is 8:55 am.

8 b) 11 minutes

1 hour 50 minutes = $60 + 50 = 110$ minutes.

Divide this by 10 to find $\frac{1}{10}$: $110 \div 10 = 11$ minutes.

9 a) 100

Oti has £10 and magazines cost 10p. 10p goes into £1 ten times, so with £10 Oti could buy $10 \times 10 = 100$ magazines.

9 b) £3.75

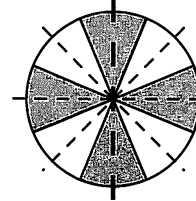
A hardback cost £2.50 and three paperbacks cost $\text{£}1.25 \times 3 = \text{£}3.75$. So Oti spent: $\text{£}2.50 + \text{£}3.75 = \text{£}6.25$ and got $\text{£}10 - \text{£}6.25 = \text{£}3.75$ change.

10 a) E

Amelia's shape is divided into 8 equal parts. 4 out of 8 parts are shaded, which is equivalent to half of the shape. Half of shape E is also shaded.

10 b) 3

There are 4 lines of symmetry as shown here:



Amelia has already drawn the line shown in bold, so there are $4 - 1 = 3$ more lines to be drawn.

11 a) 400 m

Change one of the units so both distances are in m or km — m are easier to use here. To convert km to m you multiply by 1000, so 1.8 km is 1800 m. $1800 \text{ m} - 1400 \text{ m} = 400 \text{ m}$.

11 b) 1439 m

To become 1400 m when rounded to the nearest hundred, the distance must be bigger than or equal to 1350 m and less than 1450 m. This is only true for 1439 m.

12 a) £4.50

$5 \times 9 = 45$. 90 is 10 times bigger than 9, so $5p \times 90 = 45 \times 10 = 450p$ which is the same as £4.50.

12 b) 30

$\frac{2}{3}$ of the stickers are purple, so $1 - \frac{2}{3} = \frac{1}{3}$ of the stickers are not purple. $\frac{1}{3}$ of 90 is $90 \div 3 = 30$.

12 c) 42 cm

The perimeter of the shape is made up of six 3 cm lengths and six 4 cm lengths. $3 \times 6 = 18$ and $4 \times 6 = 24$, so the perimeter is $18 + 24 = 42 \text{ cm}$.

13 a) 0.46 m

Luke is the tallest with a height of 1.65 m.

Bill is the shortest with a height of 1.19 m.

Subtract Bill's height from Luke's height:

$$\begin{array}{r} 1.5815 \\ - 1.19 \\ \hline 0.46 \end{array}$$

13 b) 183 cm

Change Manon's height to centimetres:

1 m = 100 cm, so $1.47 \text{ m} = 1.47 \times 100 = 147 \text{ cm}$.

Add on 36 cm using the column method:

$$\begin{array}{r} 147 \\ + 36 \\ \hline 183 \end{array}$$

13 c) 8

Aziz's height is 1.2 m. Try multiplying 1.2 m by different numbers to see how many times it goes into 10 m. Using the times tables, you know $12 \times 8 = 96$. 1.2 is 10 times smaller than 12, so $1.2 \text{ m} \times 8 = 9.6 \text{ m}$. You also know $12 \times 9 = 108$, so $1.2 \text{ m} \times 9 = 10.8 \text{ m}$. This is too big, so Aziz's height can fit into the height of his house 8 whole times.

Section 2: Verbal Reasoning — Cloze

- 1) **occur**
'The modern Paralympics **occur** every four years'
- 2) **television**
'The London 2012 Paralympics were watched on **television**'
- 3) **major**
'the Paralympics haven't always been such a **major** sporting event.'
- 4) **history**
'the Olympics have a long **history**'
- 5) **recent**
'the Paralympics are a more **recent** development.'
- 6) **soldiers**
'Guttmann began working with **soldiers** with spinal injuries'
- 7) **recover**
'which involved helping them to **recover**'
- 8) **popular**
'This proved so **popular** that in 1948, Guttmann organised'
- 9) **involved**
'This event, which **involved** an archery competition'
- 10) **wheelchairs**
'an archery competition for athletes in **wheelchairs**'
- 11) **became**
'These later **became** known as the Paralympics'
- 12) **expanded**
'The event has **expanded** over time'
- 13) **range**
'so that athletes with a wider **range** of disabilities can compete.'
- 14) **grown**
'The number of sports included has also **grown**'
- 15) **important**
'The Paralympic Games play an **important** role'
- 16) **continue**
'the Paralympics **continue** to grow in popularity'

Section 3: Non-Verbal Reasoning

- 1) **B**
The figure moves up and a copy appears below it.
- 2) **A**
The smaller shape is copied onto each corner of the large shape.
- 3) **D**
The outline of the shape becomes solid. A small square with a dashed outline appears inside the shape.
- 4) **B**
The figure rotates 90 degrees clockwise. Two arrows appear, which both point towards the right.
- 5) **B**
The line becomes thicker, and half of the shapes move to the other side of the line.
- 6) **D**
The figure is reflected across. The mug and the oval swap patterns.
- 7) **D**
Another identical shape is added to the end of the bug's body. The bug's head moves behind its body.

- 8) **C**
All figures must contain a hatched shape in front of a black shape.
- 9) **A**
All figures must be identical apart from rotation.
- 10) **A**
All figures must contain three different shapes which each have a different shading.
- 11) **B**
In all figures, the shading on the mouse's nose must match the shading on the inside of the mouse's ears. The mouse must have a pointed face.
- 12) **C**
All figures must contain two small shapes in front of a large shape which has a dashed outline. The number of sides of the large shape must be one more than the number of sides on each of the small shapes.
- 13) **B**
In all figures, moving from top to bottom, the length of the rectangles must increase and the number of vertical black lines inside each rectangle must increase by one.
- 14) **C**
Working from left to right, the black shape becomes grey.
- 15) **C**
Working from left to right, the number of points on the star decreases by one. The number of dashed lines also decreases by one.
- 16) **D**
Working from top to bottom, the number of identical socks increases by one. The new sock is added on top of the previous sock.
- 17) **D**
Working from left to right, one more shape is shaded. The shapes are shaded in order of size, from the largest to the smallest.
- 18) **D**
Working from left to right, the arrow moves to point at a different shape, going in the order: black, grey, white. The style of arrowhead is the same in each column.
- 19) **A**
Working from left to right, the figure rotates 45 degrees clockwise. The black shape moves further along the white rectangle.
- 20) **B**
Working from top to bottom, a smaller version of the large shape appears inside the large shape. The new shape has a dashed outline. The shading of the teardrop changes from white to grey to black.
- 21) **C**
The figure is rotated 90 degrees clockwise. Options A and D are the wrong shape. Option B has the wrong shading.
- 22) **A**
The figure is rotated 135 degrees clockwise. Option B has the wrong shading. Option C is the wrong shape. Option D is a rotated reflection.
- 23) **C**
The figure is rotated 90 degrees clockwise. Options A and D are the wrong shape. Option B is a reflection.
- 24) **D**
The figure is rotated 90 degrees anticlockwise. In option A, the grey stripe is in the wrong place. Option B has triangles instead of circles. In option C, the shading of the circles is wrong.

25) C

The figure is rotated 45 degrees clockwise. Option A is a rotated reflection. Option B has the wrong shading. In option D, the black rectangles and the three white squares next to them are in the wrong place.

26) C

The figure is rotated 90 degrees clockwise. Option A is a rotated reflection. In option B, the spiral is going in the wrong direction. In option D, the spiral is the wrong shape.

27) B

The figure is rotated 180 degrees. In option A, the shading is wrong. In options C and D, the layering is wrong.

28) B

All other figures contain only one type of shading.

29) D

In all other figures, the head of the snake is pointing to the right.

30) D

In all other figures, the circle and the triangle are on the same side of the dividing line.

31) A

In all other figures, the tallest tree is on the left-hand side.

32) C

All other figures contain five black diamonds.

33) E

All other figures are identical apart from shading and rotation.

34) C

In all other figures, the shading of the car's front wheel matches the shading of its windows.