SharpY Mind

Every great Mind starts with Why



Quest/Bexley-style Mock Paper 1 answers and marking sheet

Verbal Ability · English · Numerical Reasoning

How to mark. Give 1 mark for each correct answer. Write each section's score in the table, then read the reasons for every question you got wrong. Each wrong option is a slip real children make, so the explanation shows what went wrong. Scores from a SharpY paper do not predict a real exam mark, because real papers differ by area and year and pass marks are set locally.

Section	Score
Paper 1 · Verbal Ability	_____ / 20
Paper 1 · English	_____ / 10
Paper 2 · Numerical Reasoning	_____ / 20
Paper 2 · Non-verbal Reasoning	_____ / 12

Independent practice paper. Written in the style of Quest Assessments (Bexley Selection Test). Not a real or past paper, and not produced, checked or endorsed by Quest Assessments (Bexley Selection Test) or any school. Your school's own information is the authority on its test.

Practise free at sharpymind.co.uk →

SharpY Mind

The free 11+ app for Years 3 to 5: no account, no card, no ads.
Free to print and use at home, no sign-up needed. Source: sharpymind.co.uk/free-11-plus-mock-papers-pdf

Paper 1 · Verbal Ability

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
E	B	E	B	A	B	C	D	E	B	A	C	C	D	B	A	E	D	E	A

Q1. E) ZKHDW Letter codes

In a code, RIVER is written as ULYHU. Using the same code, how is WHEAT written?
Compare RIVER with ULYHU: each letter moves 3 places forward in the alphabet. Apply that to WHEAT to get ZKHDW.

- **A) YJGCV**: this answer moves each letter one place too few
- **B) WDHKZ**: this answer has the right letters but writes them in reverse order
- **C) TEBXQ**: this answer moves each letter 3 places the wrong way
- **D) ALIEX**: this answer moves each letter one place too far

Q2. B) 13 Number sequences

What number comes next in the sequence? 7, 58, 9, 52, 11, 46, ?
Two patterns are mixed together: one goes up by 2, the other goes down by 6. So the next number is 13.

- **A) 40**: this answer continues the downward pattern instead of the upward one
- **C) 15**: this answer adds 2 twice
- **D) 12**: this answer makes a slip of one
- **E) 48**: this answer adds 2 to the previous number instead of following the pattern

Q3. E) M Letter sequences

Which letter comes next in the sequence? E, G, I, K, ?
Each letter is 2 places after the one before. The letter at position 13 is M.

- **A) O**: this answer jumps 2 places twice
- **B) L**: this answer stops one letter short
- **C) N**: this answer goes one letter too far
- **D) K**: this answer repeats the last letter

Q4. B) grape Anagrams

Rearrange the letters GPAER to make a fruit. Which fruit is it?
The letters of GPAER can be rearranged to spell GRAPE.

- **A) guava**: this answer is a fruit but uses different letters from GPAER
- **C) apple**: this answer is a fruit but uses different letters from GPAER
- **D) mango**: this answer is a fruit but uses different letters from GPAER
- **E) peach**: this answer is a fruit but uses different letters from GPAER

Q5. A) 57 Alphabet values

If A = 1, B = 2, C = 3 and so on up to Z = 26, what is the total value of the letters in SWAN?
S=19, W=23, A=1, N=14. Add: 19 + 23 + 1 + 14 = 57.

- **B) 43**: this answer leaves the last letter out of the total
- **C) 53**: this answer counts A as 0 instead of 1, so every letter is one too low
- **D) 71**: this answer counts the last letter twice
- **E) 33**: this answer adds only the first and last letters

Q6. B) ape Hidden words

The name of an animal is hidden where two or more words meet in this sentence. Which animal is it? “He kept a pen in his pocket every day.”
Run the words together without spaces: hekeptapeninhispocketeveryday. The animal “ape” is hidden across the gap between words.

- **A) jay**: this answer does not appear anywhere in the sentence, even when the words are run together
- **C) toad**: this answer does not appear anywhere in the sentence, even when the words are run together
- **D) sow**: this answer does not appear anywhere in the sentence, even when the words are run together
- **E) ewe**: this answer does not appear anywhere in the sentence, even when the words are run together

Q7. C) Maya Ordering logic

Dev is taller than Priya. Priya is taller than Leo. Leo is taller than Maya. Aisha is taller than Dev. Who is the shortest?
Put the people in order: Aisha, Dev, Priya, Leo, Maya (from tallest to shortest). The shortest is Maya.

- **A) Aisha**: this answer is not the shortest, because Aisha is taller than Dev
- **B) Priya**: this answer is not the shortest, because Priya is taller than Leo
- **D) Dev**: this answer is not the shortest, because Dev is taller than Priya
- **E) Leo**: this answer is not the shortest, because Leo is taller than Maya

Q8. D) 21 Odd number out

Which number is the odd one out? 21 37 13 29 47

13, 29, 37, 47 each is a prime number. 21 is not a prime number (it has other factors).

- **A) 29**: this answer is a prime number, so it fits the pattern
- **B) 13**: this answer is a prime number, so it fits the pattern
- **C) 47**: this answer is a prime number, so it fits the pattern
- **E) 37**: this answer is a prime number, so it fits the pattern

Q9. E) Thursday Days and dates

Today is Friday. What day of the week will it be in 20 days' time?

A week is 7 days. 20 = 2 × 7 + 6, so only the 6 extra days matter. 6 days after Friday is Thursday.

- **A) Saturday**: this answer counts backwards instead of forwards
- **B) Friday**: this answer counts one day too many
- **C) Sunday**: this answer treats the number of whole weeks as the number of days
- **D) Wednesday**: this answer counts today as day 1, so it is one day early

Q10. B) QFDBO Letter codes

In a code, HOUSE is written as ELRPB. Using the same code, how is TIGER written?

Compare HOUSE with ELRPB: each letter moves 3 places back in the alphabet. Apply that to TIGER to get QFDBO.

- **A) WLJHU**: this answer moves each letter 3 places the wrong way
- **C) PECAN**: this answer moves each letter one place too far
- **D) RGECP**: this answer moves each letter one place too few
- **E) OBDFQ**: this answer has the right letters but writes them in reverse order

Q11. A) 12 Number sequences

What number comes next in the sequence? 3, 32, 6, 28, 9, 24, ?

Two patterns are mixed together: one goes up by 3, the other goes down by 4. So the next number is 12.

- **B) 20**: this answer continues the downward pattern instead of the upward one
- **C) 15**: this answer adds 3 twice
- **D) 27**: this answer adds 3 to the previous number instead of following the pattern
- **E) 11**: this answer makes a slip of one

Q12. C) M Letter sequences

Which letter comes next in the sequence? F, G, I, J, L, ?

The gaps alternate between +1 and +2, so the next gap is +1. The letter at position 13 is M.

- **A) N**: this answer uses +2 again
- **B) K**: this answer goes back a place
- **D) O**: this answer jumps +3
- **E) L**: this answer repeats the last letter

Q13. C) ant Hidden words

The name of an animal is hidden where two or more words meet in this sentence. Which animal is it? "The man took the last biscuit."

Run the words together without spaces: themantookthelastbiscuit. The animal "ant" is hidden across the gap between words.

- **A) ibis**: this answer does not appear anywhere in the sentence, even when the words are run together
- **B) bear**: this answer does not appear anywhere in the sentence, even when the words are run together
- **D) goat**: this answer does not appear anywhere in the sentence, even when the words are run together
- **E) dove**: this answer does not appear anywhere in the sentence, even when the words are run together

Q14. D) lemon Anagrams

Rearrange the letters MONEL to make a fruit. Which fruit is it?

The letters of MONEL can be rearranged to spell LEMON.

- **A) olive**: this answer is a fruit but uses different letters from MONEL
- **B) apple**: this answer is a fruit but uses different letters from MONEL
- **C) mango**: this answer is a fruit but uses different letters from MONEL
- **E) grape**: this answer is a fruit but uses different letters from MONEL

Q15. B) Grace Ordering logic

Jack is faster than Zain. Maya is faster than Hugo. Zain is faster than Maya. Grace is faster than Jack. Who is the fastest?
Put the people in order: Grace, Jack, Zain, Maya, Hugo (from fastest to slowest). The fastest is Grace.

- **A) Hugo**: this answer is not the fastest, because Maya is faster than Hugo
- **C) Jack**: this answer is not the fastest, because Grace is faster than Jack
- **D) Maya**: this answer is not the fastest, because Zain is faster than Maya
- **E) Zain**: this answer is not the fastest, because Jack is faster than Zain

Q16. A) 20 Number sequences

What number comes next in the sequence? 8, 48, 12, 43, 16, 38, ?
Two patterns are mixed together: one goes up by 4, the other goes down by 5. So the next number is 20.

- **B) 33**: this answer continues the downward pattern instead of the upward one
- **C) 19**: this answer makes a slip of one
- **D) 42**: this answer adds 4 to the previous number instead of following the pattern
- **E) 24**: this answer adds 4 twice

Q17. E) 59 Alphabet values

If A = 1, B = 2, C = 3 and so on up to Z = 26, what is the total value of the letters in TENT?
T=20, E=5, N=14, T=20. Add: 20 + 5 + 14 + 20 = 59.

- **A) 79**: this answer counts the last letter twice
- **B) 40**: this answer adds only the first and last letters
- **C) 55**: this answer counts A as 0 instead of 1, so every letter is one too low
- **D) 39**: this answer leaves the last letter out of the total

Q18. D) SGIER Letter codes

In a code, FROST is written as JVSWX. Using the same code, how is OCEAN written?
Compare FROST with JVSWX: each letter moves 4 places forward in the alphabet. Apply that to OCEAN to get SGIER.

- **A) REIGS**: this answer has the right letters but writes them in reverse order
- **B) KYAWJ**: this answer moves each letter 4 places the wrong way
- **C) RFHDQ**: this answer moves each letter one place too few
- **E) THJFS**: this answer moves each letter one place too far

Q19. E) I Letter sequences

Which letter comes next in the sequence? B, C, E, F, H, ?
The gaps alternate between +1 and +2, so the next gap is +1. The letter at position 9 is I.

- **A) H**: this answer repeats the last letter
- **B) G**: this answer goes back a place
- **C) K**: this answer jumps +3
- **D) J**: this answer uses +2 again

Q20. A) Monday Days and dates

Today is Tuesday. What day of the week will it be in 34 days' time?
A week is 7 days. 34 = 4 × 7 + 6, so only the 6 extra days matter. 6 days after Tuesday is Monday.

- **B) Tuesday**: this answer counts one day too many
- **C) Saturday**: this answer treats the number of whole weeks as the number of days
- **D) Sunday**: this answer counts today as day 1, so it is one day early
- **E) Wednesday**: this answer counts backwards instead of forwards

Paper 1 · English

21	22	23	24	25	26	27	28	29	30
B	A	B	C	A	A	E	E	C	E

Q21. B) how far away the flowers are Comprehension

What does the length of the waggle tell the other bees?
Evidence in the passage: “The longer she waggles, the further away the flowers are.”.

- **A) which way to fly**: direction is shown by the angle of the run, not by its length
- **C) how many flowers there are**: the passage never says the dance shows the number of flowers
- **D) when the sun will set**: the sun is only used as a guide to direction
- **E) how fast to fly**: speed is not mentioned in the passage

Q22. A) the direction of the flowers Comprehension

What is shown by the angle of the straight run compared with the sun?
Evidence in the passage: “shows the other bees which direction to fly”.

- **B) the size of the hive**: the hive size is never mentioned
- **C) the time of day**: the passage does not link the dance to time
- **D) the distance to the flowers**: distance is shown by how long she waggles
- **E) the kind of flower**: the passage does not say the dance shows the kind of flower

Q23. B) a small area Comprehension

What does the word “patch” mean in “a patch of flowers”?
Evidence in the passage: “a patch of flowers”.

- **A) a path made by bees**: a patch is not a path
- **C) a piece of cloth that mends a hole**: this is another meaning of patch, not used here
- **D) a type of flower**: patch describes an area, not a type
- **E) a short time**: the passage is describing a place, not a time

Q24. C) Scientists can work out where a bee has been by reading her dance. Comprehension

Which statement is supported by the passage?
Evidence in the passage: “can now work out exactly where a bee has been simply by reading her moves”.

- **A) Scientists have only just discovered the dance.**: the passage says they have watched it for decades
- **B) Bees dance to cool down the hive.**: the passage gives a different reason for the dance
- **D) The dance only works on sunny days.**: the passage does not say this
- **E) All bees in the hive perform the dance.**: the passage says a worker bee who finds flowers performs it, not all bees

Q25. A) parliament Spelling

Which word is spelt correctly in British English?
The correct spelling is “parliament”. Split it into syllables and check each part.

- **B) parliment**: this spelling leaves out an a
- **C) parlament**: this spelling leaves out an i
- **D) parlimant**: this spelling leaves out an a and ends -ant
- **E) parliamant**: this spelling ends -amant

Q26. A) sturdy Vocabulary

Which word is the opposite of “fragile”?
“fragile” means delicate, so its opposite is “sturdy”.

- **B) thin**: this answer is not the opposite of “fragile”, although it is linked to the same idea
- **C) fragrant**: this answer looks or sounds a little like “fragile” but is not its opposite
- **D) delicate**: this answer means almost the same as “fragile”, not the opposite
- **E) light**: this answer is not the opposite of “fragile”, although it is linked to the same idea

Q27. E) "Can we go outside now?" asked Leo. Speech punctuation

Which sentence is punctuated correctly?

The spoken words start with a capital letter and the punctuation (?) goes inside the speech marks. Because "asked Leo" carries on the same sentence, it starts with a small letter.

- **A) "Can we go outside now?" Asked Leo.**: this answer starts "Asked" with a capital letter, but the sentence carries on after the speech
- **B) "Can we go outside now." asked Leo.**: this answer has the wrong closing mark inside the speech marks; a full stop cannot come before "asked Leo"
- **C) "Can we go outside now" asked Leo.**: this answer has no punctuation at the end of the spoken words
- **D) "Can we go outside now"? asked Leo.**: this answer puts the punctuation outside the speech marks instead of inside

Q28. E) They're, their, there Their / there / they're and similar

Choose the words that fill the three gaps correctly, in order. "(1) ____ sure (2) ____ coats are over (3) ____."

Check each gap by saying the sentence with the words each could stand for. Answer: They're, their, there.

- **A) They're, there, their**: this answer uses "there" in blank 2, but "there" points to a place or begins "there is / there are", so it does not fit there
- **B) They're, there, they're**: this answer uses "there" in blank 2, but "there" points to a place or begins "there is / there are", so it does not fit there
- **C) There, they're, there**: this answer uses "there" in blank 1, but "there" points to a place or begins "there is / there are", so it does not fit there
- **D) There, there, there**: this answer uses "there" in blank 1, but "there" points to a place or begins "there is / there are", so it does not fit there

Q29. C) the girls' classroom Apostrophes

Which is the correct way to write that the classroom belongs to three girls?

There is more than one girl, so the plural girls is the owner. The apostrophe goes after the s: the girls' classroom.

- **A) the girls classroom**: this answer has no apostrophe to show ownership
- **B) the girls classroom's**: this answer puts the apostrophe on the thing owned instead of the owner
- **D) the girls's classroom**: this answer for a regular plural ending in s, the apostrophe goes after the s
- **E) the girl's classroom**: this answer puts the apostrophe as if there were only one girl

Q30. E) conscience Spelling

Which word is spelt correctly in British English?

The correct spelling is "conscience". Split it into syllables and check each part.

- **A) conshience**: this spelling spells the sc as sh
- **B) consience**: this spelling replaces sc with s
- **C) conscence**: this spelling leaves out the i
- **D) concience**: this spelling leaves out the s

Paper 2 · Numerical Reasoning

31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
E	D	A	D	A	A	C	E	B	D	A	A	C	C	E	D	B	C	D	C

Q31. E) 15 Order of operations

What is 7 + 4 × 4 − 8?
Multiplication first: 4 × 4 = 16. Then 7 + 16 = 23, and 23 − 8 = 15.

- **A) 31**: this answer adds 8 instead of taking it away
- **B) 36**: this answer works left to right, (7 + 4) × 4 − 8, adding before multiplying
- **C) −9**: this answer subtracts 8 from 4 first, which the order of operations does not allow
- **D) 23**: this answer finds 7 + 4 × 4 and forgets to take away 8

Q32. D) 80 cm² Area

What is the area of a rectangle that is 16 cm long and 5 cm wide?
Area = length × width = 16 × 5 = 80 cm².

- **A) 40 cm²**: this answer halves the answer, as for a triangle
- **B) 21 cm²**: this answer adds length and width and stops
- **C) 42 cm²**: this answer finds the perimeter by adding all four sides
- **E) 160 cm²**: this answer doubles the answer, perhaps from multiplying one side twice

Q33. A) £1.90 Money and change

Kavya buys 6 sandwiches at £1.35 each and pays with a £10 note. How much change does Kavya get?
6 × £1.35 = £8.10. Change: £10 − £8.10 = £1.90.

- **B) £8.65**: this answer takes the price of only one item from £10
- **C) £8.10**: this answer is the total cost, not the change
- **D) £1.80**: this answer slips by 10p when subtracting the pence
- **E) £2.90**: this answer forgets to borrow in the subtraction, so it is £1 too high

Q34. D) 8 Fraction of an amount

What is 2/5 of 20?
20 ÷ 5 = 4 is one part. 2 parts: 4 × 2 = 8.

- **A) 12**: this answer finds 3/5, the part that is left over, not 2/5
- **B) 40**: this answer multiplies 20 by 2 and never divides by 5
- **C) 18**: this answer takes 2 away from 20 instead of finding a fraction
- **E) 4**: this answer finds 1/5 only (20 ÷ 5 = 4) and forgets to multiply by 2

Q35. A) 17:05 Time

The film starts at 15:40 and lasts 1 hour 25 minutes. At what time does it finish?
15:40 + 1 hour = 16:40. Then add 25 minutes: 16:40 + 25 = 17:05. An hour has 60 minutes, so carry over to the next hour when the minutes pass 60.

- **B) 16:05**: this answer adds the minutes but does not carry the extra hour when they pass 60
- **C) 17:15**: this answer is 10 minutes late, from a slip when counting on past the hour
- **D) 14:15**: this answer takes the length away instead of adding it
- **E) 16:55**: this answer is 10 minutes early, from a slip when counting on past the hour

Q36. A) 8.065 kg Units of mass

A rucksack weighs 8 kg 65 g. What is its mass in kilograms?
1 kg is 1000 g, so 65 g is 65/1000 = 0.065 kg. 8 + 0.065 = 8.065 kg.

- **B) 8065 kg**: this answer gives the mass in grams but writes kg
- **C) 0.065 kg**: this answer converts the 65 g but leaves out the 8 whole kilograms
- **D) 8.65 kg**: this answer treats 65 g as 65/100 of a kilogram
- **E) 14.5 kg**: this answer treats 65 g as 65/10 of a kilogram

Q37. C) −3°C Negative numbers

On the hill, the temperature at 6 a.m. is 3°C. By midnight it has fallen by 6 degrees. What is the temperature at midnight?
Falling 6 degrees from 3°C: 3 − 6 = −3. It goes below zero.

- **A) −2°C**: this answer does not count zero as a step when crossing from positive to negative
- **B) 9°C**: this answer adds the fall to the temperature instead of taking it away
- **D) 3°C**: this answer takes the smaller number from the larger and loses the minus sign
- **E) −9°C**: this answer treats the starting temperature as below zero

Q38. E) 58° Angles

Three angles meet on a straight line. Two of them are 71° and 51°. What is the size of the third angle?
Angles on a straight line add up to 180°. 71 + 51 = 122, and 180 − 122 = 58.

- **A) 122°**: this answer adds the two angles and stops
- **B) 238°**: this answer uses 360° (a full turn) instead of 180° for a straight line
- **C) 109°**: this answer takes only the first angle away from 180°
- **D) 19°**: this answer uses 90° (a right angle) as the total and takes away only the first angle

Q39. B) 806 Long multiplication

What is 31 × 26?
31 × 6 = 186 and 31 × 20 = 620. Add: 186 + 620 = 806.

- **A) 620**: this answer only multiplies by the tens, 20
- **C) 186**: this answer only multiplies by the units digit, 6
- **D) 248**: this answer forgets the zero when multiplying by the tens digit, so it uses 62 instead of 620
- **E) 906**: this answer has the right two parts but slips when adding them (100 too many)

Q40. D) 665 Percentage of an amount

What is 95% of 700?
10% of 700 is 70. Build 95% from 10%, 5% and 1% pieces to reach 665.

- **A) 630**: this answer counts only the whole tens of the percentage (90%) and ignores the rest
- **B) 66.5**: this answer is ten times too small, from dividing by 10 once too often
- **C) 6650**: this answer puts the decimal point in the wrong place, so it is ten times too big
- **E) 35**: this answer finds what is left after 95% has been taken away

Q41. A) 11 Mean (average)

What is the mean of these five numbers? 5, 14, 9, 12, 15
Add: 5 + 14 + 9 + 12 + 15 = 55. Divide by 5: 55 ÷ 5 = 11.

- **B) 55**: this answer adds the numbers and forgets to divide by 5
- **C) 12**: this answer gives the middle number when they are put in order (the median), not the mean
- **D) 10**: this answer halves the biggest and smallest numbers added together
- **E) 9.17**: this answer divides by 6 instead of 5

Q42. A) 4 cm Perimeter

A rectangle has a perimeter of 56 cm and a length of 24 cm. What is its width?
Two lengths and two widths make 56 cm. Half the perimeter is 28 cm, which is length + width. 28 − 24 = 4 cm.

- **B) 32 cm**: this answer takes away only one length from the whole perimeter
- **C) 8 cm**: this answer takes away two lengths but forgets there are two widths, so this is 2 × width
- **D) 28 cm**: this answer stops at half the perimeter, which is length + width
- **E) 16 cm**: this answer takes the length off the whole perimeter first and then halves, but two lengths must come off before halving

Q43. C) £84 Ratio and sharing

£156 is shared between Omar and Theo in the ratio 7 : 6. How much does Omar get?
7 + 6 = 13 equal parts. £156 ÷ 13 = £12 for each part. Omar gets 7 × £12 = £84.

- **A) £12**: this answer stops after finding the value of one part
- **B) £78**: this answer shares the money equally and ignores the ratio
- **D) £72**: this answer is Theo's share, not Omar's
- **E) £22.29**: this answer divides the money by 7, the first ratio number, instead of by 13

Q44. C) 73 Number patterns

A pattern starts 7, 13, 19, 25 and keeps going up by the same amount each time. What is the 12th number in the pattern?
It goes up by 6 each time. From the 1st number to the 12th there are 11 jumps: 7 + 11 × 6 = 73.

- **A) 66**: this answer finds 11 jumps but forgets the starting 7
- **B) 72**: this answer multiplies the step 6 by 12 and ignores the starting number
- **D) 79**: this answer uses 12 jumps instead of 11
- **E) 67**: this answer uses 10 jumps and so finds the 11th number

Q45. E) 70 km Speed, distance and time

A coach travels at 40 kilometres per hour for 1 hour 45 minutes. How far does it travel?
In 1 hour it goes 40 km. In 45 minutes it goes 30 km (45/60 of 40). Total: 40 + 30 = 70 km.

- **A) 85 km**: this answer adds the 45 minutes straight onto the kilometres
- **B) 58 km**: this answer writes 1 hours 45 minutes as 1.45 hours, but 45 minutes is not 45/100 of an hour
- **C) 80 km**: this answer rounds the time up to 2 hours
- **D) 40 km**: this answer ignores the extra 45 minutes

Q46. D) 225 Percentage of an amount

What is 75% of 300?

10% of 300 is 30. Build 75% from 10%, 5% and 1% pieces to reach 225.

- **A) 210**: this answer counts only the whole tens of the percentage (70%) and ignores the rest
- **B) 2250**: this answer puts the decimal point in the wrong place, so it is ten times too big
- **C) 22.5**: this answer is ten times too small, from dividing by 10 once too often
- **E) 75**: this answer finds what is left after 75% has been taken away

Q47. B) 63 Fraction of an amount

What is 7/10 of 90?

90 ÷ 10 = 9 is one part. 7 parts: 9 × 7 = 63.

- **A) 630**: this answer multiplies 90 by 7 and never divides by 10
- **C) 27**: this answer finds 3/10, the part that is left over, not 7/10
- **D) 83**: this answer takes 7 away from 90 instead of finding a fraction
- **E) 9**: this answer finds 1/10 only (90 ÷ 10 = 9) and forgets to multiply by 7

Q48. C) 270 Long multiplication

What is 18 × 15?

18 × 5 = 90 and 18 × 10 = 180. Add: 90 + 180 = 270.

- **A) 370**: this answer has the right two parts but slips when adding them (100 too many)
- **B) 90**: this answer only multiplies by the units digit, 5
- **D) 108**: this answer forgets the zero when multiplying by the tens digit, so it uses 18 instead of 180
- **E) 180**: this answer only multiplies by the tens, 10

Q49. D) £72 Ratio and sharing

£96 is shared between Ella and Grace in the ratio 6 : 2. How much does Ella get?

6 + 2 = 8 equal parts. £96 ÷ 8 = £12 for each part. Ella gets 6 × £12 = £72.

- **A) £48**: this answer shares the money equally and ignores the ratio
- **B) £24**: this answer is Grace's share, not Ella's
- **C) £16**: this answer divides the money by 6, the first ratio number, instead of by 8
- **E) £12**: this answer stops after finding the value of one part

Q50. C) 100 km Speed, distance and time

A coach travels at 80 kilometres per hour for 1 hour 15 minutes. How far does it travel?

In 1 hour it goes 80 km. In 15 minutes it goes 20 km (15/60 of 80). Total: 80 + 20 = 100 km.

- **A) 95 km**: this answer adds the 15 minutes straight onto the kilometres
- **B) 92 km**: this answer writes 1 hours 15 minutes as 1.15 hours, but 15 minutes is not 15/100 of an hour
- **D) 160 km**: this answer rounds the time up to 2 hours
- **E) 80 km**: this answer ignores the extra 15 minutes

Paper 2 · Non-verbal Reasoning

51	52	53	54	55	56	57	58	59	60	61	62
A	D	D	C	B	B	B	D	E	D	C	C

Q51. A)  **big white L-shape, turned a quarter turn clockwise** Odd one out (diagrams)

Which figure is the odd one out?

Four of the figures are turned the same way. Only the answer is turned a different way.

- B)  **big white L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- C)  **big grey L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- D)  **small grey L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- E)  **small white L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out

Q52. D)  **small black L-shape, turned a quarter turn anticlockwise** Pattern sequences (diagrams)

Which figure comes next in the sequence?



Look at each feature in turn: the figure turns a quarter turn clockwise each time; the shading follows a repeating pattern of 3.

- A)  **small grey L-shape, turned a quarter turn clockwise**: this answer turns the figure the wrong way; also keeps the shading of the last figure instead of changing it
- B)  **small white L-shape, upright**: this answer turns the figure one step too far; also moves the shading one step too far along its pattern
- C)  **big white L-shape, turned a quarter turn anticlockwise**: this answer moves the shading one step too far along its pattern; also changes the size, which should stay the same
- E)  **small white L-shape, upside down**: this answer does not turn the figure at all; also moves the shading one step too far along its pattern

Q53. D)  **small black triangle, pointing right** Same change (diagrams)

The first figure changes into the second. Make the same change to the third figure. Which figure shows the result?



In the first pair the size goes from big to small, and the figure turns a half turn. Do exactly the same to the third figure.

- A)  **big white triangle, pointing right**: this answer leaves the size unchanged; also changes the shading, which should stay the same
- B)  **big black triangle, pointing left**: this answer leaves the size unchanged; also does not turn the figure
- C)  **big black triangle, pointing up**: this answer leaves the size unchanged; also turns the figure by the wrong amount
- E)  **small white triangle, pointing left**: this answer does not turn the figure; also changes the shading, which should stay the same

Q54. C)  **big white arrow, pointing up** Odd one out (diagrams)

Which figure is the odd one out?

Four of the figures are diamonds. Only the answer is an arrow.

- A)  **small white diamond**: this answer is a diamond, like three of the other figures, so it is not the odd one out
- B)  **big white diamond**: this answer is a diamond, like three of the other figures, so it is not the odd one out
- D)  **small black diamond**: this answer is a diamond, like three of the other figures, so it is not the odd one out
- E)  **big black diamond**: this answer is a diamond, like three of the other figures, so it is not the odd one out

Q55. B) **small grey square** Pattern sequences (diagrams)

Which figure comes next in the sequence?



Look at each feature in turn: the shape follows a repeating pattern of 3; the shading follows a repeating pattern of 2.

- A) **small white triangle, pointing up**: this answer moves the shape one step too far along its pattern; also keeps the shading of the last figure instead of changing it
- C) **big grey triangle, pointing up**: this answer moves the shape one step too far along its pattern; also changes the size, which should stay the same
- D) **small white circle**: this answer keeps the shape of the last figure instead of changing it; also keeps the shading of the last figure instead of changing it
- E) **big grey circle**: this answer keeps the shape of the last figure instead of changing it; also changes the size, which should stay the same

Q56. B) **big white triangle, pointing right** Same change (diagrams)

The first figure changes into the second. Make the same change to the third figure. Which figure shows the result?



In the first pair the figure turns a half turn, and the size goes from small to big. Do exactly the same to the third figure.

- A) **big grey triangle, pointing left**: this answer does not turn the figure; also changes the shading, which should stay the same
- C) **small white triangle, pointing up**: this answer turns the figure by the wrong amount; also leaves the size unchanged
- D) **big grey triangle, pointing right**: this answer changes the shading, which should stay the same
- E) **small white triangle, pointing left**: this answer does not turn the figure; also leaves the size unchanged

Q57. B) **big white arrow, pointing left** Odd one out (diagrams)

Which figure is the odd one out?
Four of the figures are turned the same way. Only the answer is turned a different way.

- A) **small white arrow, pointing down**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- C) **small black arrow, pointing down**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- D) **big white arrow, pointing down**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- E) **big black arrow, pointing down**: this answer is turned the same way, like three of the other figures, so it is not the odd one out

Q58. D) **big black triangle, pointing right** Pattern sequences (diagrams)

Which figure comes next in the sequence?



Look at each feature in turn: the size follows a repeating pattern of 2; the figure turns a quarter turn clockwise each time.

- A) **small black triangle, pointing left**: this answer keeps the size of the last figure instead of changing it; also turns the figure the wrong way
- B) **small black triangle, pointing up**: this answer keeps the size of the last figure instead of changing it; also does not turn the figure at all
- C) **big white triangle, pointing right**: this answer changes the shading, which should stay the same
- E) **big white triangle, pointing up**: this answer does not turn the figure at all; also changes the shading, which should stay the same

Q59. E)  **big grey triangle, pointing down** Same change (diagrams)

The first figure changes into the second. Make the same change to the third figure. Which figure shows the result?



In the first pair the shading goes from black to grey, and the figure turns a quarter turn clockwise. Do exactly the same to the third figure.

- A)  **big black triangle, pointing up**: this answer leaves the shading unchanged; also turns the figure the wrong way
- B)  **big black triangle, pointing left**: this answer leaves the shading unchanged; also turns the figure by the wrong amount
- C)  **big black triangle, pointing right**: this answer leaves the shading unchanged; also does not turn the figure
- D)  **small grey triangle, pointing down**: this answer changes the size, which should stay the same

Q60. D)  **big grey L-shape, turned a quarter turn clockwise** Odd one out (diagrams)

Which figure is the odd one out?
Four of the figures are turned the same way. Only the answer is turned a different way.

- A)  **small grey L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- B)  **big grey L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- C)  **big white L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out
- E)  **small white L-shape, upright**: this answer is turned the same way, like three of the other figures, so it is not the odd one out

Q61. C)  **big black arrow, pointing left** Pattern sequences (diagrams)

Which figure comes next in the sequence?



Look at each feature in turn: the figure turns a quarter turn anticlockwise each time.

- A)  **big black arrow, pointing down**: this answer turns the figure one step too far
- B)  **big black arrow, pointing up**: this answer does not turn the figure at all
- D)  **big black arrow, pointing right**: this answer turns the figure the wrong way
- E)  **small black arrow, pointing right**: this answer turns the figure the wrong way; also changes the size, which should stay the same

Q62. C)  **big black triangle, pointing up** Same change (diagrams)

The first figure changes into the second. Make the same change to the third figure. Which figure shows the result?



In the first pair the figure turns a half turn, and the shading goes from grey to black. Do exactly the same to the third figure.

- A)  **small black triangle, pointing left**: this answer turns the figure by the wrong amount; also changes the size, which should stay the same
- B)  **big black triangle, pointing left**: this answer turns the figure by the wrong amount
- D)  **big grey triangle, pointing left**: this answer turns the figure by the wrong amount; also leaves the shading unchanged
- E)  **big grey triangle, pointing down**: this answer does not turn the figure; also leaves the shading unchanged