# **Answers**

# **Practice Paper 1A: English and Verbal Reasoning**

#### English: The Dragon's Pearl (pages 6-8)

1	В	The boy and his mother were close to starvation. The drought had caused the fields to dry up so not a lot of crops could be grown.
2	С	To find fresh green grass. The boy was running out of places he could go to find good grass.
3	A	Thoughtful. Examples in the text include him caring for his mother, using money to buy food for both of them and sharing his good luck with villagers.
4	Е	The pearl increased things wherever it was placed. Examples include a patch of grass, rice and other foods.
5	D	The mother threw the pearl into a well. All the other actions and events are true when some villagers decided they wanted the pearl.
6	A	The simile in this phrase is 'like old friends greeting each other'. It gives the impression that the dry cracks were happy to be joined again into a healthier soil.
7	E	People believed that the river dragon went on to always protect their land from natural disasters. The thoughtful boy was now a protective, caring dragon.
8	В	The word 'tentatively' in line 9 has the same meaning as 'carefully'.
9	D	The word 'diminished' in line 2 is a verb. It means 'to shrink' or 'lessen'. The 'River Min gradually diminished into muddy puddles' means that the drought caused the water of the River Min to dry up and leave just 'muddy puddles'.

#### Anni's Rainforest (page 9)

1	С	A capital letter is needed for the proper noun 'Anni's'.
2	N	No mistake
3	В	A capital letter is needed for 'He' to show the start of a sentence.
4	Α	A possessive apostrophe is needed to indicate that Sinchi is in his cousin Anni's village: cousin's village.
5	D	A full stop is needed at the end of the speech sentence: "I want to find out why you like the forest so much."
6	В	A comma is needed after a fronted adverbial phrase: 'With a sigh of resignation, Anni'. The comma separates the phrase from the main clause and shows a natural verbal pause.
7	С	A question mark is used incorrectly in this phrase, "What a dump?" It should be an exclamation mark: "What a dump!"
8	Α	A comma is needed in a list of adjectives: "It's just a <b>noisy, smelly</b> wood!"
9	С	A contraction apostrophe is missing for the contraction 'wouldn't'.

#### Dear Diary (page 10)

1	D	exception The suffix 'ion' is often used if the root word ends in 't' or 'te', for example, 'except - exception'.
2	В	fort 'fort' means a small castle or army base. Its homophone word 'fought' is the past tense verb of 'fight'.
3	С	legion The letters 'gi' in 'legion' make the /j/ sound, as in 'giant'.
4	В	patrol There is only one 'I' at the end of the word 'patrol'.
5	N	No mistake
6	Α	steady The word 'steady' uses 'ea' for the short vowel /e/ sound, as in 'head', 'bread'.
7	В	believe We use 'ie' when it has a long vowel /e/ sound, as in 'field', 'chief'.
8	В	actually 'actually' is an adverb. We add 'ly' straight onto most adjectives that end in a consonant 'actual -ly'.

#### Night Terror (page 11)

1	В	sat Use the past tense action verb for 'sit'. We use 'seated' for when we put someone into a seat.
2	D	had woken This sentence is in the past perfect tense. We use 'had' before the past participle for 'wake', which is 'woken'.
3	Α	was The sentence is in the past tense. We use the 'being verb' - 'was' - to show a singular object.
4	С	<b>Despite</b> This word introduces or links the two contrasting images of Fred being 'cocooned in a warm bed' and he 'couldn't stop shivering.' in question 5.
5	E	couldn't The contracted word for 'could not', which means it was difficult or impossible to 'stop shivering'.
6	В	across This is a prepositional word. It is the only one that makes sense in the sentence.
7	D	tried The past tense verb for 'try'. For root verbs that end in '-y', we often replace the 'y' with an 'i' and then add '-ed'.
8	A	<b>his</b> This is a possessive pronoun. We use it before a noun to show what the main subject in a sentence owns. In the text, it is about a boy, so the correct pronoun would be 'his mouth'.

#### Verbal Reasoning (page 12)

1	Α	Listen to The hidden word is 'tent'. Listen to the patter of rain.
2	E	yellow ink? The hidden word is 'wink'. Have you got any yellow ink?
3	С	grabbed gems The hidden word is 'edge'. The thief grabbed gems with diamonds.
4	В	puffin dived The hidden word is 'find'. The puffin dived off the cliff.

#### (page 13)

1	B, X	wet; dry An ocean is 'wet'. A desert is 'dry'.
2	C, X	planet; star Jupiter is described as a 'planet'. The Sun is described as a 'star'.
3	A, Y	time; length A minute is a measurement of 'time'. A metre is a measurement of 'length'.
4	A, Y	shirt; shoes Buttons can fasten up a 'shirt'. Laces can fasten up 'shoes'.
5	B, X	walk; run Stroll is another word for 'walk'. Sprint is another word for 'run'.

#### (page 14)

1	Α	<b>GT</b> To get EV from DW, DW are the fourth letters in from left (A–D) and right (Z–W). EV are the fifth letters along from left and right. To follow the pattern, the next letters after FU (sixth) are GT.
2	С	<b>QS</b> To get GI from BD, count three letters from D to G; count two letters from G to get letter I. To follow the pattern for LN, count three letters from N to get Q; count two letters from Q to get S.
3	В	<b>WY</b> To get NP from MQ, N is the letter after M; P is the letter before Q. Follow the pattern to get WY from VZ – W comes after V and Y comes before Z.
4	Α	<b>QP</b> To get BA from HD, count 6 letters back from H to get B. Count 3 letters back from D to get A. Follow the pattern for WS. Count back six letters from W to get to Q; count 3 letters back from S to get P.
5	Α	<b>TP</b> To get KG from ML, count two letters back from M to get K; count four letters back from K to get G. Follow the pattern for VU. Count two letters back from V to get T. Count four letters back from T to get P.

#### (page 15)

1	С	rub – second and third letters from first word and first letter from second word. (skin [kid] damp) (drum [rub] bend)
2	E	wand – first letter from first word and last three letters from second word. (loan [list] mist) (wish [wand] land)
3	Α	rang – third and fourth letters from first word and the final two letters from second word. (table [blow] grow) (straw [rang] cling)
4	В	cream – first, second and third letters from first word and first and second letters from second word.  (crumb [crush] shelf) (cream] ample)
5	D	mice – first and third letters from first word and first and third letters from second word.  (class [cage] green) (main [mice] cress)

## (page 16)

1	A, Y	reply; answer Both words can mean a response to something being asked.
2	C, X	delicate; fragile Both words can mean something that is easily broken.
3	A, Z	spectator; observer Both words can mean someone who watches something.
4	B, X	flexible; bendy Both words can mean something or someone that can move easily.

#### (page 17)

1	Α	<b>21</b> Add 4 to each number: 5 (+ 4), 9 (+ 4), 13 (+ 4), 17 (+ 4), 21.
2	С	<b>16</b> Subtract 4 from 16 until you reach 4 (16 (-4), 12 (-4), 8 (-4), 4). Add 4 to repeat pattern: 4 (+ 4), 8 (+ 4), 12 (+ 4), 16.
3	D	117 Add 8 after each number in line. First, third and fifth numbers: 72 (+ 8), 80 (+ 8), 88; second, fourth and sixth numbers: 101 (+8), 109 (+8), 117.
4	Α	17 Alternate even numbers and odd numbers: (12, 14, 16, 18) and (11, 13, 15, 17).  You can also subtract one number from the even numbers to get the odd numbers, eg 12-1 = 11.
5	С	<b>22</b> Subtract 2 for first, third and fifth numbers: 38 (–2), 36 (–2), 34 (–2), 32; add 2 for second, fourth and sixth numbers: 16 (+ 2), 18 (+ 2), 20 (+ 2), 22.

#### Reading Question (page 17)

1	С	Isla does the fewest things. She does one ride:
		Isla goes on the rollercoaster.
		Meena goes on the big wheel, the water slide and the dodgem cars.
		Josh goes on the rollercoaster and the dodgem cars.
		Dan goes on the rollercoaster and the water slide.

# **Practice Paper 1B: Mathematics and Non-verbal Reasoning**

Mathematics (pages 19–24)

	natienatics (pages 19-24)			
1	Е	<b>413,607</b> The number is made up of 400,000, 13,000, 600 and 7, which are put together to give 413,607.		
2	Α	<b>140ml</b> 0.2 l is 200ml, so 340ml – 200ml = 140ml.		
3	С	24,214 > 24,2124 The thousands digits are the same but there are 2 hundreds in 24,214 compared to 1 hundred in 24,124.		
4	В	<b>be odd.</b> The example $1 + 3 + 7 = 11$ rules out all options except 'be odd'. All other sums of three odd numbers are also odd.		
5	Е	<b>72</b> $12 \times 6 = 72$ and $9 \times 8 = 72$		
6	O	<b>6</b> Apples: $7 \times 55p = £3.85$ . $£6.25 - £3.85 = £2.40$ . $£2.40 \div 40p = 6$ pears		
7	D	<b>2012</b> M = 1000, X = 10, I = 1, so MM = 2000, X = 10 and II = 2, which gives 2012.		
8	Α	<b>-185</b> - <u>153</u> - <u>153</u> - <u>153</u> - <u>153</u>		
		<b>-185 -32</b> 121 274 427		
9	С	Harbin has the greatest temperature difference at 12°C.		
10	Е	<b>3.45kg</b> 400g + 750g + 1500g + 600g + 200g = 3450g = 3.45kg		
11	С	<b>19</b> Two-thirds like swimming, so one-third do not. One third of 57 is 19 children (57 ÷ 3).		
12	D	<b>15</b> £3.25 × 15 = £48.75 and £3.25 x 14 = £45.50, so 15 weeks are enough, but 14 or fewer weeks are not.		
13	Е	32cm² The dark shaded triangle that forms part of the parallelogram can be moved to the right-hand side to form a		
		rectangle.		
		3cm		
		4cm		
		11 cm 11 cm		
		Longest side of the shaded rectangle = 11cm - 3cm = 8cm		
		Area = $8cm \times 4cm = 32cm^2$		
14	С	<b>nearest 1000</b> 476,000 is a multiple of 1000. For the other answers: rounding to the nearest 10 gives 475,680 rounding to the nearest 100 gives 475,700 rounding to the nearest 10,000 gives 480,000, and rounding to the nearest 100,000 gives 500,000.		
15	В	<b>Red knot</b> Writing all of the numbers using digits makes them easier to compare. The red knot flies the shortest distance at 145,000km.		
16	В	$\frac{34}{40} \times 100 = 85\%$		
		This could also be calculated by working out $34 \times 2.5$ because there are two and half times 40 in 100, so multiplying 34 by 2.5 gives the percentage.		
17	Α	<b>19.4km</b> 6.1km + 3.7km + 5km + 4.6km = 19.4km		
18	D	17 0 goals × 2 games = 0 goals		
		1 goal × 4 games = 4 goals		
		2 goals × 1 game = 2 goals 3 goals × 2 games = 6 goals		
		4 goals × 0 games = 0 goals		
		5 goals × 1 game = 5 goals		
		0 + 4 + 2 + 6 + 0 + 5 = 17 goals overall		
19	Ε	23 Work backwards using reverse operations:		
		16 – 7 = 9		
		9 × 2 = 18		
		18 + 5 = 23 Check by working forwards: $(23 - 5) : 2 + 7 = 16$		
20	Α	Check by working forwards: $(23 - 5) \div 2 + 7 = 16$ <b>20cm</b> There is no way of making a rectangle perimeter of 20cm with an area of 36cm <sup>2</sup> .		
		(The other answers are possible for these rectangles: B 18cm × 2cm, C 36cm × 1cm, D 12cm × 3cm, E 9cm × 4cm)		
21	D	$\frac{3}{12} + \frac{1}{3} = \frac{7}{12}$		
22	С	10.05am		
		60km per hour is the same as 1km per minute.		
		8.20am plus 40 minutes = 9.00am		
		9.00am plus 60 minutes = 10.00am		
		10.00am plus 5 minutes = 10.05am		

23	E	<b>63</b> 1.5 × 6 = 9
		5 × 1.4 = 7
		9 = ? ÷ 7
		9 = 63 ÷ 7
24	D	(5, 4) 7 46 46 46 47 48 48 48 48 48 48 48 48 48 48 48 48 48
25	В	2 There are two triangles separated by three rectangles.

## Non-verbal Reasoning: Codes (pages 25–27)

1	E	LY The first letter indicates the number of triangles in the pattern.			
		The second letter indicates the type of shading used in the right-hand triangle.			
		L is four triangles and Y is diagonal shading.			
2	В	ET The first letter indicates the number of small L shapes.			
		The second letter indicates the orientation of the crossed lines.			
		E is one L shape and T is vertical orientation.			
3	D	MUG The first letter indicates the outer shape.			
		The second letter indicates the proportion of the shape that is shaded.			
		The third letter indicates the type of shading.			
		M is a circle, U is half of the shape and G is solid black shading.			
4	С	<b>LMO</b> The first letter indicates the two shapes to the left and right of the shape in the centre.			
		The second letter indicates the shape in the centre.			
		The third letter indicates the shading of the shape in the centre.			
		L is two squares either side of the centre, M is a square in the centre and O is black shading of the shape in the centre.			
5	Α	XS The first letter indicates the number of lines around the edge.			
		The second letter indicates the number of crosses.			
		X is three lines and S is one cross.			
6	Α	EF The first letter indicates the arrow direction.			
		The second letter indicates the size of the triangle.			
		E is a north-east pointing arrow and F is a large triangle.			
7	D	SA The first letter indicates the style of the arrowhead.			
		The second letter indicates the number of loops.			
		S is a triangular arrowhead and A is one loop.			
8	В	<b>ZM</b> The first letter indicates the direction of the straight line.			
		The second letter indicates the direction of the swirl.			
		Z is a north-west pointing line and M is an anticlockwise swirl.			
9	В	<b>IVB</b> The first letter indicates the line style of the X.			
		The second letter indicates the position of the triangle.			
		The third letter indicates the type of shading used in the triangle.			
		I is a dashed line X, V is the triangle in the bottom section of the X and B is the triangle shaded black.			
10	С	<b>RK</b> The first letter indicates the type of shading used in the triangle.			
		The second letter indicates the position of the white circle.			
		R is a black triangle and K is a white circle on the left corner of the triangle.			
11	E	TX The first letter indicates the outer shape.			
		The second letter indicates the line style inside the shape.			
		T is a rectangle and X is a wavy line.			
12	Α	PBF The first letter indicates the shape at the bottom of the shield shape.			
		The second letter indicates the shape at the top of the shield shape.			
		The third letter indicates the number of crosses.			
		P is a pointed bottom, B is a curved top and F is three crosses.			
13	С	<b>LW</b> The first letter indicates the type of shading used in the triangle.			
		The second letter indicates the line pattern inside the rectangle.			
		L is diagonal shading and W is a diagonal line running from bottom left to top right.			

#### Series (pages 28-30)

1	D	The arrow moves 90° clockwise and an additional line is added to the tail each time.			
2	Α	The small black square moves clockwise inside the large square. A black dot appears in the small square where the small black square appeared previously, and then the black dots are gradually joined up.			
3	С	he outer shape alternates between a rectangle and a circle. The triangle alternates between point up and point down. he shading rotates 45° each time.			
4	В	The arrow moves one section anticlockwise each time, and the shaded section moves two sections clockwise each ime.			
5	E	The curved lines around the edge of the large square replace the straight edges of the small square one at a time, working clockwise. A small line is added to the centre each time.			
6	В	the outer shape alternates between a circle and a square and increases in size: small circle, small square, medium rcle, medium square, large circle. Each time the shape size increases, all sections of the shape are split in half with the eaddition of one or more full length lines. The lines remain in the same orientation for a shape type throughout the uestion.			
7	Α	The shape rotates 90° anticlockwise each time. There are three types of arrowhead that appear in sequence. There are 3, 2, 1, 2, 3 parallel lines in the sequence.			
8	D	The shape with the dot is halved and shaded in the next picture in the sequence.			
9	С	The large arrow pointing into the corner moves 90° clockwise each time and alternates between a black and white arrowhead.			
		The small arrow moves clockwise around the square, alternating between being parallel with a side of the square and being diagonal across a corner.			
10	E	There is one more black square, one more cross and one fewer white circle each time.			
11	В	The pattern alternates between anticlockwise and clockwise. Two lines are added each time.			
12	Α	The shape rotates 90° anticlockwise each time.			
13	В	The two shapes that are at either end of the central arrow swap places. The position of the arrow doesn't follow a pattern.			

# Practice Paper 2A: English and Verbal Reasoning English: Roman Writers (pages 32 and 41–42)

1	Α	The main purpose of part 1 is to introduce the importance of Roman writing and famous Roman writers.			
2	С	'Virgil was born and brought up in a small village in northern Italy.' His early poems were inspired by the farmers and			
		peasants in the area where he lived.			
3	D	It is not true that Virgil wanted his poem to be published after he had died. He 'requested that the whole poem was to			
		be burned after his death'.			
4	В	The line 'My father is a fly: you can't keep anything secret from him; he's always buzzing around' is a metaphor. It			
		directly compares his father's actions to a fly's actions. Most metaphors have 'is' before the comparison: 'My father is a			
		fly'.			
5	D	Pliny the Younger wrote an eyewitness account of the 'volcanic eruption of Mount Vesuvius in AD79'.			
6	E	Pliny the Younger's uncle successfully gave the impression of being cheerful for his nervous friend. Pliny thought he			
		was brave because he hid his own fear from his friend.			
7	Α	The word 'droves' in line 19 has a similar meaning to 'masses'.			
		'People would come in <b>droves</b> '.			
8	В	The word 'insight' in line 28 has a similar meaning to 'understanding'.			
		'Pliny offers an interesting <b>insight</b> into the remarkable character of his uncle.'			
9	Е	'Roman', 'Italy', 'The Aeneid', 'Mount Vesuvius', 'Pliny the Elder' are all proper nouns.			
		Proper nouns are specific/special names for a person, place, title or thing.			
		'Roman' is a specific name given to people who came from Ancient Rome/Italy.			
		'Italy' and 'Mount Vesuvius' are names of places.			
		'The Aeneid' is the title of Virgil's epic poem.			
		'Pliny the Elder' is the specific name of a well-known Roman.			
10	Α	There is one adverb in this sentence: ' <b>Luckily</b> , Emperor Augustus intervened and <i>The Aeneid</i> was saved for generations			
		to read and enjoy.'			

#### Punctuation (page 43)

1	С	A semicolon is needed between 'cancelled' and 'the'. It shows two clauses whose ideas are linked, but each clause can			
		independently stand alone.			
2	N	No mistake			
3	D	An exclamation mark is needed to show excitement in Thea's voice: "We've won the national championship!"			
4	С	A comma is needed to separate items in a list of vegetables: 'potatoes, leeks and carrots'.			
5	С	A hyphen is needed between 'chocolate' and 'covered'. We use a hyphen for compound adjectives that go before a noun: 'chocolate-covered raisins'.			
6	D	A capital letter is needed for the 'i' in 'islands'. It is part of the proper noun name of a place: 'Shetland Islands'.			
7	В	Speech marks are needed at the start of the dialogue sentence: "The volcano is on the verge of erupting."			
8	Α	A contraction apostrophe is needed to form the correct contraction: 'Don't'.			

#### Spelling (page 44)

1	A	<b>happily</b> With adjectives ending in '-y', we replace the 'y' with 'i' and then add '-ly' to change them into adverbs: 'happy - happ + i + ly'.			
2	С	myth We use 'y' for the sound 'i' in 'myth'.			
3	В	committee There are three double letters in 'committee': 'mm', 'tt', 'ee'.			
4	N	No mistake			
5	A	<b>desert</b> This is the correct spelling for a hot, sandy expanse of land. 'Dessert' is its near homophone. It means a sweet dish in a meal.			
6	D	stomach This word has an ancient Greek origin. The 'ch' sound at the end of the word has a 'k' sound.			
7	С	fourth For an ordinal number word, we add 'th' to the end of 'four'.			
8	D	notatoes We add 'es' for the plural of notato			

#### **Grammar** (page 45)

1	В	would have We use 'would have' to talk about something that could have happened in the past but then did not		
		happen.		
2	С	her The possessive pronoun. It tells us that Queen Dhanya owned the stallion.		
3	A	best The other four words are not grammatically correct. 'Best' is a superlative adjective and does not need 'est', 'er', 'most'.		
4	В	<b>is taken</b> We use 'is taken' to show an action of something that happens regularly (in the past, present and future). We use 'is' for a singular noun – the recycling bin.		
5	D	<b>funniest</b> This is a superlative adjective. For adjectives ending in '-y', we replace the 'y' with an 'i' before we add '-est': funn + i + est.		
6	E	an We add the article 'an' before words starting in a vowel – 'an unusual insect'.		
7	С	<b>before</b> This is a time conjunction. 'Before' is the only example in the list of conjunctions that makes sense when Zoe baked the fruit muffins.		

#### Verbal Reasoning (page 46)

1	В	TOO The climber sTOOd on top of the mountain peak. The other three letter choices do not make proper words or give			
		a wrong subject-verb agreement or do not make sense in a sentence.			
2	D	<b>OWL</b> My dog often grOWLs at my friend's cat. The other three letter choices do not make proper words or do not make			
		sense in a sentence.			
3	С	SIT The Duke's ancient castle is now open to viSITors. The other three letter choices do not make proper words.			
4	В	<b>BED</b> The servant girl was expected to be oBEDient. The other three letter choices do not make sense.			
5	E	<b>KEY</b> Watch out for that hocKEY stick! The other three letter choices do not make sense.			

#### (page 47)

1	В	<b>ON</b> The counting pattern for the set of pairs is + 3 (H–K), -1 (K–J), + 3 (J–M), -1 (M–L), + 3 (L–O), -1 (O–N).			
		Start each pair with the last letter from the previous pair.			
2	В	YB First letters in pairs go forwards one letter from U (U, V, W, X, Y); second letters in pairs go back one letter from F (F,			
		E, D, C, B).			
3	E	PN First, third and fifth pairs – alphabetical order forwards from EF (EF, GH, IJ); second, fourth and sixth pairs – count			
		two letters backwards from V (V–T, S–Q, P–N).			
4	D	<b>UR</b> The counting pattern is + 1, -1, + 2, -2, + 3, -3.			
		AB (count 1 letter forward); ZY (count 1 letter backwards); CE (count 2 letters forward); XV (count 2 letters backwards);			
		FI (count 3 letters forward); UR (count 3 letters backwards).			
5	Α	<b>HJ</b> The counting pattern is + 5, + 2.			
		The first letters in the pairs are in alphabetical order from C (C, D, E, F, G, H). The second letters in the pairs are as			
		follows: First pair: count + 5 letters from C (C–H); Second pair: count + 2 letters forward (D–F); third pair: count + 5			
		letters from E (E-J); fourth pair: count + 2 letters from F (F-H); fifth pair: count + 5 letters from G (G-L); sixth pair: count			
		+ 2 letters from H (H–J).			

#### (page 48)

1	Α	Two new words are 'port and 'yaks'. Move 's' in first word. Add to the end of the second word.			
2	В	Two new words are 'sack' and 'town'. Move 'n' in first word. Add to the end of the second word.			
3	Е	e Two new words are 'quit' and 'robe'. Move 'e' in first word. Add to the end of the second word.			
4	E	e Two new words are 'rang' and 'made'. Move 'e' in the first word. Add to the end of the second word.			
5	В	h Two new words are 'sell' and 'hitch'. Move 'h' in the first word. Add at the beginning of the second word.			

#### (page 49)

1	В	plot (plan conspire): to work out an idea or action; (land allotment): an area of ground to build or garden on.		
2	С	poor (needy penniless): to lack in money; (sub-standard dismal): bad quality.		
3	Е	notice (observe spot): to see someone or something; (poster advertisement): written information or announcement.		
4	Α	break (crack shatter): to be damaged by a strong force; (interval playtime): to have a rest from a main activity.		
5	С	drive (steer operate): to control a machine/vehicle; (determination ambition): the desire to succeed.		

#### (page 50)

1	В	<b>p</b> The four words are: flap, push, trap, pear.	fla(p)ush	tra(p)ear
2	С	<b>d</b> The four words are: gold, drop, head, down.	gol(d)rop	hea(d)own
3	D	<b>n</b> The four words are: basin, nudge, widen, note.	basi(n)udge	wide(n)ote
4	E	w The four words are: slow, wood, allow, wand.	slo(w)ood	allo(w)and
5	Α	y The four words are: sky, yell, handy, yellow.	sk(y)ell	hand(y)ellow

#### (page 51)

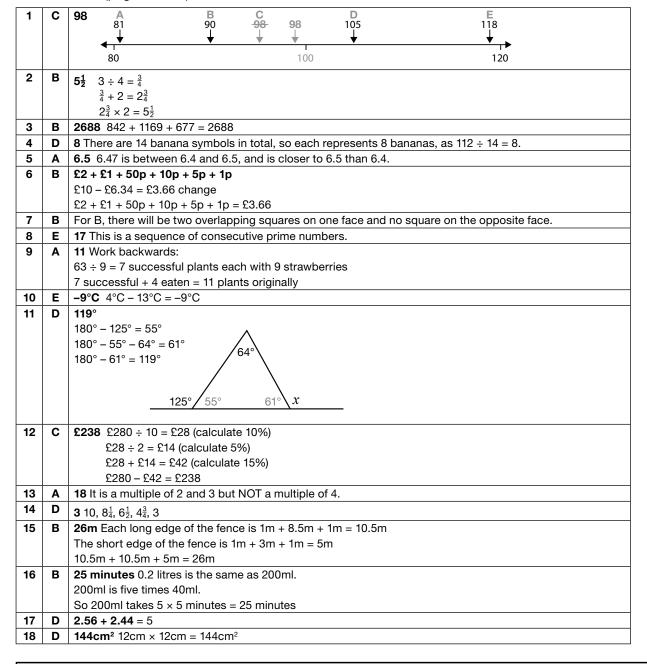
1	E	<b>20</b> 59 – 7 = 32 + 20 (59 – 7 = 52) (32 + <b>20</b> = 52)
2	С	<b>3</b> $7 \times 3 + 12 = 10 \times 3 + 3$ $(7 \times 3 (21) + 12 = 33)$ $(10 \times 3 (30) + 3 = 33)$
3	D	<b>4</b> $48 \div 8 \times 4 = 5 \times 4 + 4$ $(48 \div 8 (6) \times 4 = 24)$ $(5 \times 4 (20) + 4 = 24)$

#### Reading Question (page 51)

1	В	The sentence 'Jaden is a stronger swimmer than Thea' is true:
		Thea can definitely swim 25m.
		Jaden can definitely swim 50m.
		A and D: The information does not tell us how far or fast Antoni can swim.
		There is no information to tell us if sentences C and E are true.

## **Practice Paper 2B: Mathematics and Non-verbal Reasoning**

#### Mathematics (pages 53-58)



19	Е	70m 20m (above sea level) + 50m (below sea level) = 70m
20	В	<b>6</b> Factors of 42: 1, 2, 3, 6, 7, 14, 21 and 42
		Factors of 90: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45 and 90
21	С	<b>101 minutes</b> 12:42 to 13:00 is 18 minutes
		13:00 to 14:00 is 60 minutes
		14:00 to 14:23 is 23 minutes
		18 + 60 + 23 = 101 minutes
22	D	(5, 2) 5 4 4 3 4 5 6 7
23	A	Friday 9 July to Saturday 31 July = 23 days Sunday 1 August to Tuesday 31 August = 31 days Wednesday 1 September to Sunday 4 December = 4 days 23 + 31 + 4 = 58 days
24	С	<b>45</b> 540 ÷ 12 = 45
25	D	2 pairs of parallel lines: 1 pair of perpendicular lines:

#### Non-verbal Reasoning: Like Figures (pages 59-61)

	_	
1	В	Each shape is white, made up of straight lines and has a small white circle at one vertex.
2	В	Each circle is divided into six equal sectors; one is shaded black, two are white, one has dots, one has horizontal
		shading and the other has diagonal shading.
3	В	All have three shapes with two separately overlapping the shape in the middle.
4	D	Each shape has either two triangles on one side of the wavy line and one semicircle on the other side, or two semicircles on one side and one triangle on the other.
5	С	Each shape is made up of three squares and one rectangle.
6	D	Each shape is a quadrilateral with two black dots. The black dots are positioned on separate, adjoining lines.
7	Е	Each outer shape has a smaller version of itself inside and horizontally reflected. The larger outer shape also contains
		any shape that is small and black.
8	В	Each shape contains two thicker lines that are joined at one end and form a 90° angle, together with three thinner lines.
9	В	Each shape has only one line of symmetry.
10	Α	The total number of sides in each group of shapes is twelve.
11	Α	Each shape is split exactly in half. One half contains two crosses.
12	С	Each large white shape is accompanied by two smaller versions of the shape, one shaded black that is overlapped by
		the large shape and one with horizontal striped shading that overlaps the large shape.
13	E	All are made up of four small shapes: two squares, one triangle and one circle. One square is always black and the
		other square always has vertical striped shading.

#### Analogies (pages 62-64)

Alla	Alialogies (pages 02-04)			
1	С	The short lines at the vertices of the large shape change into smaller versions of the large shape.		
2	В	The smallest, inner shape becomes the largest, outer shape and the other two shapes reduce in size. Each shape retains its shading.		
3	Е	The shape is rotated through 180°.		
4	С	The solid lines become dashed lines and a reflection in a vertical line completes the shape with solid lines.		
5	Α	The second shape is the overlapping parts of the first shape.		
6	Α	The left-hand shape rotates 90° anticlockwise and the right-hand shape rotates 180°. The black/white shading is reversed.		
7	D	The number of circles in the first shape becomes the number of sides of the second shape. The number of dots becomes the number of crosses.		
8	В	The shape at the top of the line is moved to the right of the line. The shape at the bottom of the line is rotated 90° anticlockwise and added to the top of the line.		
9	В	The shape is reduced in size and rotated 90° anticlockwise.		
10	Е	The line thickness is reduced and one more side added to the shape.		
11	С	The 'T' shapes overlap and the line patterns are combined.		
12	Α	White shapes remain unchanged, black shapes change to triangles and striped shapes change to circles.		
13	С	Starting with the top left arrow and moving clockwise, each arrow is repeated the same number of times as the number of small lines crossing the arrow.		