Cambridge Assessment International Education

Mathematics

Stage 7

Paper 1

2024

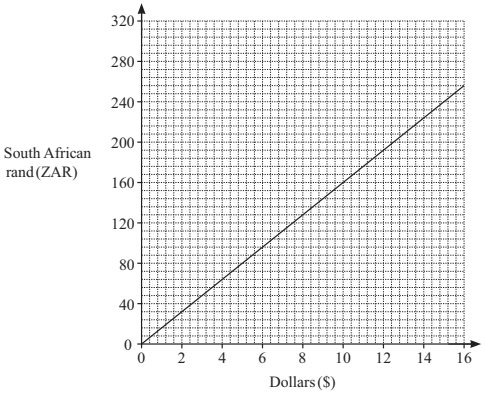
Cambridge Lower Secondary Progression Test

Mark Scheme

Question	Answer	Marks	Part Marks	Guidance
1	11	**1**		
2(a)	70(%)	**1**		
2(b)	0.14	**1**		
3(a)	13	**1**		
3(b)	42	**1**		
4	20 **and** 41	**2**	Award 1 mark for each correct answer.	
5(a)	Chooses the number 5 Chooses the number 8 Chooses an odd number	**1**		All **three** answers in the correct order for the mark. Accept any clear indication.
5(b)	$\frac{2}{6}$	**1**		Accept equivalent fraction, decimal or percentage.
6	Parallel line to *PQ* drawn.	**1**		Accept slight inaccuracies provided the intention is clear.
7	pie chart	**1**		Accept any clear indication.
8	$\frac{4}{100}$ **and** 0.04 **and** 4% only	**1**		All **three** answers correct for the mark. Accept any clear indication.

Question	Answer	Marks	Part Marks	Guidance
9(a)(i)	(first term) 6 (fifth term) –14	**2**	Award 1 mark for each correct number.	If answer line is blank then check the sequence for answers in the correct spaces.
9(a)(ii)	Subtract 5	**1**		Accept equivalent answers, e.g. take 5, – 5
9(b)	63	**1**		
10(a)	24 (cm)	**1**		
10(b)	50(°)	**1**		
11(a)	8 **and** 5 **and** 5	**2**	Award 1 mark for **two** correct numbers.	Numbers must be in the correct order for the mark(s).
11(b)	Sphere	**1**		
12(a)	$\frac{2}{21}$	**1**		
12(b)	$\frac{5}{12}$ final answer	**2**	Award 1 mark for $\frac{2}{5}\times\frac{25}{24}$ **or** $\frac{10}{25}\div\frac{24}{25}$	1 mark implied by $\frac{10}{24}$ or equivalent.
13	Correct explanation, e.g. • 400 × 60 is 24 000 so 222 000 is too large • The answer has one too many zeros • 370 × 60 is 22 200	**1**		
14	4 and 22	**1**		Accept any clear indication.
15	(–7, – 4)	**1**		

Question	Answer	Marks	Part Marks	Guidance
16	4 + 1 + 5 + 8 = 18 which is divisible by 3 or 4 + 1 + 5 + 8 = 18 and 1 + 8 = 9 which is divisible by 3 **and** 4158 is a multiple of 2 or equivalent.	**1**		A divisibility test must be used, do **not** accept a division calculation alone. Or equivalent, e.g. 4158 is even, can be divided by 2 etc.
17(a)	Image drawn with coordinates (1, –3), (5, –3) and (2, –5).	**1**		Accept slight inaccuracies provided the intention is clear.
17(b)	Image drawn with coordinates (–1, –3), (–1, 1) and (–3, –2).	**2**	Award 1 mark for shape drawn with correct size and orientation but wrong position **or** for rotation 90° clockwise around (3, –1).	Accept slight inaccuracies provided the intention is clear.
18(a)	Rectangle **or** rhombus **or** parallelogram	**1**		
18(b)	Kite	**1**		Accept isosceles trapezium.

Question	Answer	Marks	Part Marks	Guidance
19(a)		**2**	Award 1 mark for **two** correct plots seen or implied.	For 2 marks, line should extend at least as far as $x = 16$ Accuracy on line $\pm\frac{1}{2}$ small square at (0, 0) and (10, 160). Implied by, e.g. a short correct line.
19(b)	$(y =)\ 16x$	**1**		
20	0.04 **and** 1.04	**1**		Both correct in the correct order for the mark. Accept equivalent fractions, e.g. $\frac{1}{25}$ and $1\frac{1}{25}$
21	<table><tr><td></td><td>Red</td><td>Blue</td></tr><tr><td>Two doors</td><td>12</td><td>13</td></tr><tr><td>Four doors</td><td>15</td><td>30</td></tr></table> or equivalent correct table.	**2**	Award 1 mark for all **four** headings correctly placed.	Accept table headings interchanged vertically and horizontally with values correct for the order of the headings.

Question	Answer	Marks	Part Marks	Guidance
22	0.248 (*l*)	**3**	Award 1 mark for 1.24 **and** Award 1 mark for 1.24 ÷ 5 or *their* 1.24 ÷ 5	For 1 mark, accept equivalent, e.g. 1240 m*l* For 1 mark, accept equivalent, e.g. 1240 ÷ 5 ÷ 1000 Do **not** accept *their* 1.24 = 1.56
23	$\frac{13}{60}$ or equivalent fraction	**3**	Award 2 marks for $\frac{20}{60} + \frac{24}{60} + \frac{3}{60}$ or better or for $\frac{57}{60} - \left(\frac{20}{60} + \frac{24}{60}\right)$ **or** Award 1 mark for $1 - \left(\frac{1}{3} + \frac{2}{5} + \frac{1}{20}\right)$ or for sight of $\frac{19}{20}$ or $\frac{11}{15}$ or equivalent fractions.	For 2 marks, accept correct equivalent fractions with a common denominator. Or equivalent, e.g. $\frac{57}{60}$ or $\frac{44}{60}$
24(a)	0.00482	**1**		
24(b)	$\frac{14}{15}$	**1**		Accept equivalent fractions.

Question	Answer	Marks	Part Marks	Guidance
25	A description that includes • Flip the coin many times. • Record the number of heads. • Divide the number of heads by the number of trials.	**3**	Award 1 mark for each correct statement, accept equivalents.	If a number is stated it must be at least 20 trials. Accept record the results or equivalent. Accept equivalents, e.g. write as a fraction with the number of heads over the number of flips or calculate the relative frequency (of heads).