Year 3 - Reasoning and Problem Solving - Summer



General Marking Principles

- Allow answers given in words unless otherwise instructed. Ignore spelling errors provided intention is clear.
- For numbers with four or more digits, accept answers with or without a comma or other separator.

Question	Answer	Marks	Award 1 mark for Notes and guidance
Q1	Completes both sequences correctly i.e. 0 50 100 150 200 250 300 44 40 36 32 28 24 20	2	Award 1 mark for 1 correct sequence OR at least two correct terms in both sequences
Q2	530	1	
Q3	Circles the triangular prism	1	Accept any clear indication – ticked, circled, underlined etc.
Q4	Completes both sentences correctly i.e. There are 60 <u>minutes</u> in an <u>hour</u> . There are 31 <u>days</u> in March.	1	
Q5	Completes all three correctly, $A = \frac{1}{10}$, $B = \frac{6}{10}$, $C = \frac{10}{10}$	2	Allow equivalent fractions e.g. $A = \frac{1}{10}, B = \frac{3}{5}, C = 1$ Do not allow decimals. Award 1 marks for any two correct fractions.
Q6	Circles the middle of the three lines	1	Accept any clear indication – ticked, circled, underlined etc.
	Circles the pair of lines on the left	1	Accept any clear indication – ticked, circled, underlined etc.
	Draws a line 5 cm long	1	Allow 4.8 to 5.2 cm
Q7	450 275	1	Follow through – award the mark for 175 correctly subtracted from their answer to first part e.g. if 500 given for first part, award the mark for 325

Year 3 – Reasoning and Problem Solving – Summer



Q8	1 5	1	All equivalent fractions, but do not allow decimals
	$\frac{1}{2}$	1	decimals
	3 10	1	
Q9	390	1	
Q10	Completes pyramid correctly: $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	Award 1 mark for two out of three entries correct.
	Completes pyramid correctly: 840 320 520 140 180 340	2	Award 1 mark for two out of three entries correct.
Q11	42	1	
O12	21	1	
Q12	19	1	
Q13	£3 and 30p	2	Award 2 marks for the correct answer. Possible methods include: Method 1 £ 1 and 20 + 25 + 25 = £1 and 70 £ 5 - £1 and 70 = £3 and 30 Method 2 $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$ $+25$
			Award 1 mark for fully correct method with no more than one numerical error.

Year 3 – Reasoning and Problem Solving – Summer



			Evernles
			Examples:
			25 + 25 = 50
			20+50=70
			£ 1 + 70 = £ 1 and 7 Op
			25-21=24
			£4-700=£3 and 700(E)
			1 1 1 0p- a 3 ard 1 0p (2)
	Any correct proof that $\frac{1}{2} > \frac{1}{3}$		Shading of $\frac{1}{2}$ and $\frac{1}{3}$ need not be exact
	e.g.		provided intention is clear.
	• Shades $\frac{1}{2}$ of one bar and $\frac{1}{3}$		
Q14	of the other and compares	1	
	2////	·	
	3 ///		
	 Converts both to e.g. 		
	sixths and compares		
Q15	Е	1	
Q 10	В	1	
	60		Award 2 marks for the correct answer.
			Possible method:
			60
Q16			12 12 12 12 12 12 12 12 12 15 60
			1/2 1/2 1/2 1/2 1/2 x 5=60
			red green purple
		2	Award 1 mark for fully correct method
			with no more than one numerical error
			e.g.
			- 12
			5 = 1 4
			12 x 5 = 65
			Total, 70 marks

Total: 30 marks