Year 4 - 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	Notes and guidance
Q1	Circles 7, 28 and 63	1	Accept any clear indication – tick, circle, underlined etc.
Q2	2,454	1	
	5	1	Allow "five"
	Completes the line correctly:	1	
Q3	Completes the line correctly:	1	Accept $2\frac{1}{2}$ etc.
0.4	0.37	1	Must be decimals
Q4	0.3	1	
	30	1	
Q5	3	1	
70	Any number from 265 to 274.999	1	
Q6	28	1	Award 2 marks for the correct answer e.g. $20 \div 5 = 4$ $4 \times 7 = 28$ Award 1 mark for fully correct method with no more than one numerical error e.g. $20 \div 5 = 4$ $4 \times 7 = 24$
Q7	Draws a bar of height 5 for Yellow	1	
	21	1	

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Q8	< < =	2	Award 1 mark for any two correct symbols
Q9	Matches all four correctly: 10	2	Award 1 mark for two or three correct matches.
Q10	£1.02	2	Award 2 marks for the correct answer. Possible methods: 48994406398 + 1499 20 - 6398 6398 + 5 102 Method 2
	10	1	

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Q11	Completes both shapes correctly:	2	One mark for each correct answer.
	 Indicates B and gives correct explanation e.g. A has area 12 squares, but B has area 16 squares B is a 4 by 4 square, but A is a 4 by 4 square without the corners, so it's smaller 	1	
	B, D, A, C	1	
Q12	Right Acute Obtuse	2	Award 2 marks for all three correct Award 1 mark for any to correct
	(5, 3)	1	rware rmaners any to contect
0.47	Plots the point (1,3)	1	
Q13	Indicates "Trapezium"	1	
	(7, 4)	1	
Q14	448	1	
Q15	Ticks all of: 42 tenths 4 ones and 2 tenths 4.2	2	Accept any clear indication – tick, circle, underlined etc. Award 1 mark for any two correct
Q16	Matches all three correctly: $ \frac{1}{4} + \frac{1}{4} + \frac{1}{4} $ 0.25 $ \frac{1}{6} + \frac{1}{6} + \frac{1}{6} $ 0.75	2	Award 1 mark for two correct matches

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Possible methods: 2		£35		Award 3 marks for the correct answer.
2 of 2 0 = 2 0 = 3 x 2 = 8 8 x 5 = 4 0 2 of 2 0 = 1 5 8 x 5 = 4 0 2 of 2 0 = 3 5 7 S - 4 0 = 3 5 7 S - 4 0 = 3 5 7 S - 4 0 = 3 5 Award 2 mark for fully correct method with no more than one numerical error. 2 of 2 0 = 8		200		
S S A O D S D				
Q17 $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
Q17 Q17 Q17 Q17 Q18 Q18 Q19 Q19 Q19 Q19 Q19 Q19				5 '
Q17 Q17 Q17 Q17 Q18 Q18 Q19 Q19 Q19 Q19 Q19 Q19				8 x 5 = 40
Q17 Q17 Q17 Q17 Q18 Q19 Q19 Q19 Q19 Q19 Q19 Q19				
Q17 Q17 Q17 Q17 Q18 Q18 Q19 Q19 Q19 Q19 Q19 Q19				3 00 2 0 - 15
1 5 x 5 = 7 5 7 5 - 4 0 = 3 5 7 5 - 4 0 = 3 5 N 20 x0				447
17 5 4 0 3 5 10 10 10 10 10 10 10				
Q17 Award 2 mark for fully correct method with no more than one numerical error. Award 1 mark for fully correct method with two numerical errors OR correct method with two numerical errors OR correct method but incomplete e.g. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				1 3 1 3 5 7 3
Q17 Award 2 mark for fully correct method with no more than one numerical error. Award 1 mark for fully correct method with two numerical errors OR correct method with two numerical errors OR correct method but incomplete e.g. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				75-40-35
Q17 3 Award 2 mark for fully correct method with no more than one numerical error. 2				13 40 33
Q17 3 Award 2 mark for fully correct method with no more than one numerical error. 2				
Q17 Q17 Q17 Q17 Q18 Q18 Q18 Q19 Q19 Q19 Q19 Q19				
Q17 Q17 Q17 Q17 Q18 Q19 Q19 Q19 Q19 Q19 Q19 Q19				1 001 00 100 100 1001
Q17 3 Award 2 mark for fully correct method with no more than one numerical error. 2 of 2 0 = 8				100.3.10
Q17 Award 2 mark for fully correct method with no more than one numerical error. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				40 100
Award 2 mark for fully correct method with no more than one numerical error. 2 oc $1 \circ 2 \circ 3 \circ 3 \circ 4 \circ 4 \circ 2 \circ 4 \circ 3 \circ 4 \circ 4 \circ 2 \circ 4 \circ 4 \circ 3 \circ 4 \circ 4 \circ 4 \circ 4 \circ 4 \circ 4 \circ 4$				
Award 2 mark for fully correct method with no more than one numerical error. 2 oc $1 \circ = 8$ 3 $0 \circ 5 \circ 4$ 4 $\times 2 \circ 8$ 8 $\times 5 \circ 4 \circ 1 \circ 8$ 8 $\times 5 \circ 4 \circ 1 \circ 8$ Award 1 mark for fully correct method with two numerical errors OR correct method but incomplete e.g. 5 oc $1 \circ = 8$ 4 $\times 5 \circ = 4 \circ 1 \circ 8$ 4 $\times 5 \circ = 2 \circ 1 \circ 8$ 4 $\times 5 \circ = 2 \circ 1 \circ 8$ 4 $\times 5 \circ = 2 \circ 1 \circ 8$ 4 $\times 5 \circ = 2 \circ 1 \circ 8$ 4 $\times 5 \circ = 2 \circ 1 \circ 8$ 4 $\times 5 \circ = 2 \circ 1 \circ 1 \circ 8$ 5 oc $1 \circ = 8 \circ 1 \circ$				75-40=35
with no more than one numerical error. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				75
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Q17		3	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				$2 \circ 2 \circ = 8$ $\frac{3}{4} \circ 2 \circ = 15$
$4 \times 2 = 8$ $8 \times 5 = 40$ $15 \times 5 = 650$ $65 - 40 = 25$ Award 1 mark for fully correct method with two numerical errors OR correct method but incomplete e.g. $\frac{2}{5} \text{ or } 20 = 40$ $20 \div 5 = 4$ $20 \div 5 = 4$ $25 - 20 = 5$ $25 - 20 = 5$ $25 - 20 = 5$				5
$8 \times 5 = 40$ $15 \times 5 = 650$ Award 1 mark for fully correct method with two numerical errors OR correct method but incomplete e.g. $\frac{1}{5}$ of $10 = 40$ $\frac{3}{4}$ of $10 = 50$ $10 \times 5 = 4$ $10 \times 5 \times 5 = 25$ $10 \times 5 = 4$ $10 \times 5 \times 5 = 25$ $10 \times 5 = 4$ $10 \times 5 \times 5 = 25$				
Award 1 mark for fully correct method with two numerical errors OR correct method but incomplete e.g. $ \frac{2}{5} \text{ of } 20 = 40 $ $ \frac{2}{5} \text{ of } 20 = 40 $ $ \frac{2}{5} \text{ of } 20 = 50 $ $\frac{2}{5} \text{ of } 20 = 50 $ $\frac{2}{5} \text{ of } 20 = 50 $				4 × 2 = 8 3 × 3 = 1 3
Award 1 mark for fully correct method with two numerical errors OR correct method but incomplete e.g. $ \frac{2}{5} \text{ of } 20 = 40 $ $ \frac{2}{5} \text{ of } 20 = 40 $ $ \frac{2}{5} \text{ of } 20 = 50 $ $\frac{2}{5} \text{ of } 20 = 50 $ $\frac{2}{5} \text{ of } 20 = 50 $				8 x 5 = 40 15 x 5 = 650
Award 1 mark for fully correct method with two numerical errors OR correct method but incomplete e.g. $ \frac{2}{5} \text{ of } 20 = 4 \text{ of } 20 = 5 \text{ of } 20 = 5 \text{ of } 20 = 4 \text{ of } 20 = 5 \text{ of } 20 = 4 \text{ of } 20 =$				
with two numerical errors OR correct method but incomplete e.g. $\frac{2}{5}$ of $20 = 40$ $\frac{3}{4}$ of $20 = 50$ $20 \div 5 = 4$ $20 \div 4 = 5$ $25 - 20 = 5$ $25 - 20 = 5$ $25 - 20 = 5$ $25 - 20 = 5$				65-40=25
method but incomplete e.g. $\frac{1}{3}$ of \frac				<u> </u>
$\frac{2}{5} \text{ of } 20 = 40$ $\frac{3}{4} \text{ of } 20 = 50$ $20 \div 5 = 4$ $20 \div 4 = 5$ $4 \times 5 = 20$ $25 - 20 = 5$ $25 - 20 = 5$ $20 \div 5 = 4$ $20 \div 4 = 5$				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				method but incomplete e.g.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				2 or 20 - 4E 3 00 20 - 5E
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				20-5-4-5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				4 x 5 = 20 5 x S = 25
$\frac{2}{5}$ of $20 = 8$ $\frac{3}{4}$ of $20 = 15$ $20 = 5 = 4$ $20 = 4 = 5$				
20-5=4 20-4=5				25-20=5
20-5=4 20-4=5				
20-5=4 20-4=5				20020-8 30020-15
15-8=76				15-8-76
				20 - 5 = 4 20 - 4 = 5

Total: 40 marks