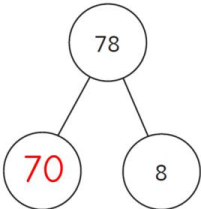
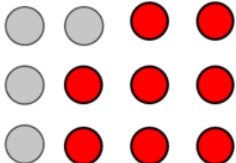

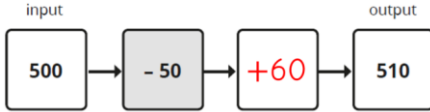


Year 3 – Reasoning & problem solving

General marking principles

- Answers should be single values in their simplest form unless the mark scheme says otherwise
- Accept reversed digits provided intention is clear e.g. a reversed 2 must clearly show the characteristics of a 2 rather than a 5
- Do not award the mark if more than one answer is given

Question	Answer	Marks	Notes and guidance					
1	263	1						
	Two hundred and sixty-three	1	Ignore spelling errors if intention is clear.					
2		1						
3	20 and 48	1	Both numbers needed. Could be given in either order.					
4	One hundred and twenty-four	1	Ignore spelling errors if intention is clear.					
	244	1	Accept in either order.					
5	Indicates 12 and 30	1	In both parts, accept any clear indication and both numbers are needed.					
	Indicates 15 and 60	1						
6	130, 134, 413, 430, 500	1						
7	Indicates 400 and 700	1	Accept any clear indication. Both numbers needed.					
8	530	1						
9	<table border="1" data-bbox="268 1893 668 1964"> <tr> <td>200</td> <td>250</td> <td>300</td> <td>350</td> <td>400</td> </tr> </table>	200	250	300	350	400	1	Both numbers needed.
200	250	300	350	400				

Question	Answer	Marks	Notes and guidance
10	e.g. Ron has made 5 equal groups of 4	1	Other acceptable answers: 4 equal groups of 5 2 equal groups of 10 10 equal groups of 2 20 equal groups of 1 1 equal groups of 20
	e.g. 	1	Accept any complete array of 12 counters e.g. 3 by 4, 4 by 3, 6 by 2, 2 by 6
11	Indicates Rosie and gives a reason e.g. <ul style="list-style-type: none"> Because $400 - 100 = 300$ 200 more than 101 is only 301 	1	Do not award the mark if no reason, or incomplete reason, given. Accept "The actual answer is 297 which is close to 300"
12	Indicates "Add 1"	1	Accept any clear indication.
13	$7 \times 3 = 5 \times 3 + 2 \times 3$	1	
	$9 \times 2 \times 2 = 9 \times 4$	1	
14	100 more than 201 is 301	1	
	10 less than 105 is 95	1	
15	<p>input</p> 	1	
	<p>input</p> 	1	

Year 3 – Reasoning & problem solving

Question	Answer	Marks	Notes and guidance
16	320	1	
17	Indicates "104" and gives a reason e.g. <ul style="list-style-type: none"> • It can't be 107 because 107 is odd • $104 = 13 \times 8$ • It's 8 more than 96 which is in the 8 times table. • $104 = 80 + 24$ which are both multiples of 8 	1	Accept any valid explanation.
18	433	1	
	"433 – 179" or "433 – 254"	1	Follow through their answer to the addition in the first part of the question. The subtraction does not need to be calculated.
19	Indicates Jug B and shows supporting working e.g. "Jug A now has 340 ml and jug B has 370 ml"	2	Award 1 mark for attempt to subtract 150 from 490 AND add 150 to 220 with no more than one arithmetic error.
20	9	1	
	22	1	Follow through from their answer to the first part provided it is at least 7 7 gives 6 stickers 8 gives 14 stickers 10 gives 30 stickers etc.

Total : 30 marks