Q	Answer	Mark	Comments
1(a)	4	B1	
	Additional Guidance		
	4 in output oval with answer line blank		B1
	4 in output oval with different answer on answer line		B0

Q	Answer	Mark	Comments
1(b)	$d = 3c - 5$ or $d = 3 \times c - 5$	B2	oe eg $d = -5 + 3c$ B1 $d = 3c \ldots$ or $d = 3 \times c \ldots$ or $3c - 5$ or $3 \times c - 5$ SC1 $c = \frac{d+5}{3}$
	Additional Guidance		
	Further incorrect work after a B2 response is B1 eg $d = 3c - 5$ followed by $d = -15c$		B1
	Further incorrect work after a B1 response is B1 eg $3c - 5$ followed by $-15c$		B1
	Condone $3c - 5$ on answer line if $d = 3c - 5$ seen in working		B2
	$3c - 5 = d$		B2
	$d = c \times 3 - 5$		B2
	$d = c3 - 5$		B1
	$c3 - 5$		B0

Q	Answer	Mark	Comments
2	Valid explanation	B1	eg it should be × 5 then + 3 or he has done $(x + 3) \times 5$
	Additional Guidance		
	Ignore irrelevant statements alongside correct statements, unless contradictory eg it should be × 5 then + 3 and he should change his equation	B1	
	Do not ignore incorrect statements alongside a correct statement eg it should be × 5 then + 3 and x and y should be swapped	B0	
	The operations are in the wrong order	B1	
	Misplacing the 3 and 5 with their operations	B0	
	The order is wrong	B0	
	+ 3 and × 5 are in the wrong order	B1	
	3 and 5 are the wrong way round	B0	
	× 5 needs to go before the + 3	B1	
	He has added the 3 first when he should have multiplied by 5	B1	
	× 5 needs to go first	B1	
	× 5 needs to go in the first box	B1	
	He has put the + 3 in the wrong place (condone)	B1	
	He has put the numbers in the wrong squares	B0	
	He has added 3 to x and not multiplied by 5	B1	
	He should have multiplied by 5 first (before adding 3)	B1	
	He should have multiplied before adding	B0	
	He has made $x + 3 \times 5 = y$	B0	
	He has made $3x \times 5 = y$	B0	
	Swap the input and the output boxes	B0	

Q	Answer	Mark	Comments
3(a)	40 in correct position in number machine	B1	

Q	Answer	Mark	Comments
3(b)	+ 11 in correct position in number machine	B1	oe operation to reach 18 eg $-\,-11$ or $\times \frac{18}{7}$

Q	Answer	Mark	Comments
3(c)	3 and 2 in correct positions in number machine	B2	B1 correct operations for input 5, output 13 or correct operations for input 10, output 28
	Additional Guidance		
	B1 may be awarded for correct work, with no or incorrect answer, even if this is seen amongst multiple attempts		
	Examples of correct operations for input 5, output 13 include $\times$ 2.6 and $-$ 0 **or** $\times$ 4 and $-$ 7 **or** $\times$ 5 and $-$ 12	B1	
	Examples of correct operations for input 10, output 28 include $\times$ 2.8 and $-$ 0 **or** $\times$ 4 and $-$ 12 **or** $\times$ 5 and $-$ 22	B1	