

Functions Mark Scheme														
1(a)	10	[1]												
1(b)	10	[1]												
1(c)	-3	[1]												
1(d)	-500	[1]												
1(e)	20	[1]												
2	<table border="1"> <thead> <tr> <th>Input</th> <th>Answer</th> </tr> </thead> <tbody> <tr> <td>$f(2)$</td> <td>9</td> </tr> <tr> <td>$f(3)$</td> <td>12</td> </tr> <tr> <td>$f(-3)$</td> <td>-6</td> </tr> <tr> <td>$f(0)$</td> <td>3</td> </tr> <tr> <td>$f(a)$</td> <td>$3a + 3$</td> </tr> </tbody> </table>	Input	Answer	$f(2)$	9	$f(3)$	12	$f(-3)$	-6	$f(0)$	3	$f(a)$	$3a + 3$	<p>[1] For 2 correct answers</p> <p>[1] For 2 correct answers</p>
	Input	Answer												
	$f(2)$	9												
	$f(3)$	12												
	$f(-3)$	-6												
	$f(0)$	3												
$f(a)$	$3a + 3$													
3	<table border="1"> <thead> <tr> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>$f(-1)$</td> <td>1</td> </tr> <tr> <td>$f(4)$</td> <td>31</td> </tr> <tr> <td>$f(2)$</td> <td>7</td> </tr> <tr> <td>$f(-b)$</td> <td>$2b^2 - 1$</td> </tr> <tr> <td>$f(1)$</td> <td>1</td> </tr> </tbody> </table>	Input	Output	$f(-1)$	1	$f(4)$	31	$f(2)$	7	$f(-b)$	$2b^2 - 1$	$f(1)$	1	<p>[1] For 2 correct answers</p> <p>[1] For all 5 correct answers</p>
	Input	Output												
	$f(-1)$	1												
	$f(4)$	31												
	$f(2)$	7												
	$f(-b)$	$2b^2 - 1$												
$f(1)$	1													
4(a)	$f(3) = 4$	[1]												
4(b)	$f(0) = 25$	[1]												
4(c)	$(x - 5)^2 = 0$	[1] Formation of equation												
	$x = 5$	[1] Correct answer												
5(a)	10	[1]												
5(b)	1	[1]												
5(c)	$-\frac{x}{4} = 0.25$	[1] Formation of equation												
	$x = \pm 7$	[1] Correct answer												
5(d)	$-5(x - 2)^2 = -5$	[1] Formation of equation												
	$x = 3$ and $x = 1$	[1] Correct answer												

END