

15	(a)		$c = 1.14$	B1	3.3	
				[1]		
15	(b)		$1.20 = 4a + 2b + 1.14$ oe $1.25 = 16a + 4b + 1.14$ oe  $a = -0.00125, b = 0.0325$	M1	3.3	both equations. FT <i>their c</i>
				A1	1.1	Fractional equivalents are $a = -\frac{1}{800}$ and $b = \frac{13}{400}$ Equivalents in standard form is acceptable
				[2]		
15	(c)		$1.29 = 1.14 + 0.0325t - 0.00125t^2$  $t = 6$ and $20$  $6 \leq t \leq 20$	M1	3.1b	FT <i>their a,b,c</i> (Can be > etc)
				A1	3.4	
				A1	3.5a	Set notation such as $t \in [6, 20]$ is fine but must not be soft brackets $t \geq 6$ <b>and</b> $t \leq 20$ or $t \geq 6 \cap t \leq 20$ but NOT $t \geq 6, t \leq 20$
				[3]		

Question		Answer	Marks	AO	Guidance
15	(d)	It will eventually predict a <u>negative exchange rate</u> oe (will fall below zero etc)	B1	3.5a	‘Exchange rate tends to zero’ is B0  Must mention the variable ‘exchange rate’ Underlined words needed
			[1]		