Question	Answer	Marks	Partial Marks
10(c)	$e^{2t} = \frac{1000000 - 484.3}{15.65}$	**M1**	Make e^{2t} the subject
	$2t = \ln\left(\frac{1000000 - 484.3}{15.65}\right)$	**M1**	Take logs correctly where $e^{2t} > 0$ or $e^n > 0$
	$\left[t = 5.5(3) \text{ or } t = 5.5\ldots.\right] \rightarrow$ 6th week.	**A1**	nfww
11(a)	$\text{LHS} = \frac{\sin x \times \frac{\sin x}{\cos x}}{1 - \cos x}$	**M1**	Uses $\tan x = \frac{\sin x}{\cos x}$
	$= \frac{1 - \cos^2 x}{\cos x(1 - \cos x)}$	**M1**	**Dep** Uses $\sin^2 x = 1 - \cos^2 x$ to eliminate $\sin x$
	$\frac{(1 - \cos x)(1 + \cos x)}{\cos x(1 - \cos x)} = \frac{1 + \cos x}{\cos x} = \sec x + 1$	**2**	**M1Dep** Factorise correctly and cancel correctly. **A1** Uses $\frac{1}{\cos x} = \sec x$
11(b)	$5\frac{\sin x}{\cos x} - 3\frac{\cos x}{\sin x} = \frac{2}{\cos x}$	**B1**	Change tan *x*, cot *x* and sec *x* into sin *x* and cos *x* correctly.
	$5\sin^2 x - 3(1 - \sin^2 x) = 2\sin x$	**M1**	Multiply correctly by $\sin x \cos x$ and use $\cos^2 x + \sin^2 x = 1$
	$8\sin^2 x - 2\sin x - 3 = 0$	**A1**	Three term quadratic.
	$(2\sin x + 1)(4\sin x - 3) = 0$	**M1**	Factorise or use formula on *their* quadratic
	$\sin x = -\frac{1}{2} \rightarrow x = 210°, 330°$	**A1**	
	$\sin x = \frac{3}{4} \rightarrow x = 48.6°, 131.4°$	**A1**	