Question	Scheme	Marks	AOs
2	Differentiate wrt t	M1	1.1a
	a = (2t - 3) i - 12 j	Al	1.1b
	$(2t-3)^2 + (-12)^2$	M1	1.1b
	$(2t-3)^2 + (-12)^2 = (6.5 / 0.5)^2$ oe	M1	2.1
	$4t^2 - 12t - 16 = 0$	A1	1.1b
	(t-4)(t+1) = 0	M1	1.1b
	t = 4	A1	1.1b
		(7)	
(7 marks)			
Notes:			
M1: At least one power going down			
A1: A correct expression			
M1: Sum of squares of components (with or without square root) of a or F			
M1: Equating magnitude to 6.5/0.5 or 6.5 as appropriate and squaring both sides			
A1: Correct quadratic = 0 in any form			
M1: Attempt to solve a 3 term quadratic			
A1: 4			