Question	Answer	Marks	AOs	Guidance	
15	substitution of $y = 1$	**M1**	**1.1a**		
	$x - 4\sqrt{x} + 3 = 0$ or $4\sqrt{x} = x + 3$ $x = 1$ or 9	**A1**	**2.1**		
	$3y^2 \frac{dy}{dx}$	**A1**	**1.1**		
	$-x \times \frac{dy}{dx} - y$ or $x \times \frac{dy}{dx} + y$	**B1**	**3.1a**		
	$3y^2 \frac{dy}{dx} - x\frac{dy}{dx} - y + \frac{2}{\sqrt{x}}[= 0]$ substitution of $y = 1$ and *their* $x = 1$ or *their* $x = 9$	**M1**	**2.1**	allow one sign error	
	$m = -\frac{1}{2}$ [at (1, 1)]	**A1**	**1.1**		
	$m = -\frac{1}{18}$ [at (1, 9)]	**M1**	**1.1**	dependent on at least two terms correct on LHS following differentiation	allow following wrong rearrangement after differentiating
		A1	**1.1**	allow – 0.05555…to 2 sf or better	
		A1	**1.1**		
		[9]			