Q	Marking instructions	AO	Marks	Typical solution
3	Uses fractional power to represent square root PI by $\frac{dy}{dx}$ involving $x^{-\frac{1}{2}}$	1.2	B1	$y = k\sqrt{x} = kx^{\frac{1}{2}}$
	Differentiates to obtain an expression in $x^{-\frac{1}{2}}$ or $\frac{1}{\sqrt{x}}$	1.1a	M1	$\frac{dy}{dx} = \frac{k}{2}x^{-\frac{1}{2}}$
	Obtains fully correct expression for $\frac{dy}{dx}$	1.1b	A1	$\frac{d^2y}{dx^2} = -\frac{k}{4}x^{-\frac{3}{2}}$
	Differentiates to obtain an expression in $x^{-\frac{3}{2}}$ or $\frac{1}{x\sqrt{x}}$ OE	1.1a	M1	At (4, 2k) $\frac{d^2y}{dx^2} = -\frac{k}{32}$
	Obtains $-\frac{k}{32}$ seen anywhere following a correct $\frac{d^2y}{dx^2}$	1.1b	A1	
	Question 3 Total		**5**	