

14		$y = 16x^{\frac{1}{2}} + 8x^{-1}$ $\frac{dy}{dx} = 8x^{-\frac{1}{2}} - 8x^{-2}$ $x = 4, \frac{dy}{dx} = \frac{7}{2}$ $x = 4, y = 34$ $y - \text{their } 34 = (\text{their } \frac{7}{2})(x - 4) \text{ oe}$ <p>e.g. sub (4, '34') into their $y = mx + c$ to find their 'c'</p>	<p>B1</p> <p>M1</p> <p>A1</p> <p>B1FT</p> <p>B1</p> <p>M1 FT</p>	<p>3.1a</p> <p>1.1</p> <p>1.1</p> <p>1.1</p> <p>1.1</p> <p>1.1</p>	<p>May be implied by correct derivative</p> <p>At least one term of the form $\alpha x^{-\frac{1}{2}}$ or βx^{-2} obtained</p> <p>All correct</p> <p>FT their $\frac{dy}{dx}$, dep on award of M1</p> <p>Their 7/2 must come from substituting $x = 4$ into their derivative</p>
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Question		Answer	Marks	AO	Guidance
		$y = \frac{7}{2}x + 20$ o.e.	A1	3.2a	<p>All correct. Depends on all previous marks. We can accept any form of the equation of the line: $7x - 2y + 40 = 0$ or $y - 34 = \frac{7}{2}(x - 4)$ o.e.</p> <p>Once the correct equation is seen in any form we can ISW if they simplify incorrectly etc</p> <p>NOTE: Final answer can be obtained from incorrect working-check their derivative</p>
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