

11	(a)	$\frac{dy}{dx} = k\sqrt{x}$ $3 = k \times \sqrt{4}$ $k = \frac{3}{2} \text{ or } \frac{dy}{dx} = \frac{3}{2}\sqrt{x} \text{ isw}$	B1 M1 A1	2.1 1.1 2.2a	may be implied by final answer if B0M0 allow SC1 for $\frac{dy}{dx} = \frac{k}{\sqrt{x}}$ and $k = 6$ as final answer or $\frac{dy}{dx} = \frac{6}{\sqrt{x}}$ as final answer
			[3]		

Question		Answer	Marks	AO	Guidance
11	(b)	<p>their $k \times \frac{x^{\frac{3}{2}}}{\frac{3}{2}}$ oe</p> <p>$10 = (\sqrt{4})^3 + c$</p> <p>$c = 2$ or $y = x^{\frac{3}{2}} + 2$ or $y = x\sqrt{x} + 2$ isw</p>	<p>B1</p> <p>M1</p> <p>A1</p>	<p>3.1a</p> <p>1.1</p> <p>1.1</p>	<p>FT their k</p> <p>FT their integration, one term in x with index 1.5</p> <p>must see 'y =' at some point</p> <p>if B0M0 allow SC2 for $y = 12x^{\frac{1}{2}} - 14$ or $y = 12\sqrt{x} - 14$</p> <p>or $y = 12x^{\frac{1}{2}} + c$ and $c = -14$</p>
			[3]		