

Question			Answer	Marks	AO	Guidance
9			DR	M1	3.1a	M1 for correct factorisation of numerator and denominator
			$\frac{a^{\frac{5}{2}}(a-1))}{a(a^{\frac{1}{2}}-1)} \times \frac{(a^{\frac{1}{2}}+1)}{(a^{\frac{1}{2}}+1)}$	M1	2.1	M1 for multiplying numerator and denominator by $(a^{\frac{1}{2}}+1)$ or $a(a^{\frac{1}{2}}+1)$ or another multiple of this.
			$= \frac{a^{\frac{3}{2}}(a-1)(a^{\frac{1}{2}}+1)}{a-1} \text{ or } \frac{a^{\frac{5}{2}}(a-1)(a^{\frac{1}{2}}+1)}{a(a-1)}$	A1	1.1	A1 for correct, simplified, denominator (dependent only on second M1 above)
			$= a^{\frac{3}{2}}(a^{\frac{1}{2}}+1) \text{ or } a^2 + a^{\frac{3}{2}}$	A1	1.1	
			$= a^2 + \sqrt{a^3}$	A1	2.2a	
			Alternative method			
			$\frac{a^{\frac{5}{2}}(a-1))}{a(a^{\frac{1}{2}}-1)}$	M1		M1 for correct factorisation of numerator and denominator
			$= \frac{a^{\frac{3}{2}}(a^{\frac{1}{2}}-1)(a^{\frac{1}{2}}+1)}{(a^{\frac{1}{2}}-1)}$	M1A1		M1 for factorising $(a-1)$; A1 for correct factors These two marks may be implied by the next line
			$= a^{\frac{3}{2}}(a^{\frac{1}{2}}+1) \text{ or } a^2 + a^{\frac{3}{2}}$	A1		
			$= a^2 + \sqrt{a^3}$	A1		
				[5]		