

4	(a)	$\frac{0.5}{2} \left[\sqrt{1+(-1)^3} + 2\sqrt{1+(-0.5)^3} + \sqrt{1+0^3} \right]$ oe $\sqrt{1+(-0.5)^3}$ soi 0.717707 cao	M1	1.1	condone omission of brackets	must be three terms in the bracket
			B1	1.1	NB $\frac{\sqrt{14}}{4} = 0.9(35414346693)$	
			A1	1.1	NB $\frac{2+\sqrt{14}}{8}$ unsupported	if unsupported allow SC3 for 0.717707 and SC2 for 0.717707173347
			[3]		implies M1B1	unsupported to 7 or more dp
4	(b)	under-estimate since curve is concave down /convex up oe	B1	2.4	or eg the slant lines of both trapezia are entirely below the curve allow annotated diagram with at least one trapezium	condone eg trapezium below curve allow integral is 0.841309 BC so my answer is an underestimate
			[1]			