Q	Marking instructions	AO	Marks	Typical solution
6(a)(i)	Obtains AWFW [7.2154, 7.2155] May be seen in the table	1.1b	B1	7.2155
	Subtotal		**1**	

Q	Marking instructions	AO	Marks	Typical solution
6(a)(ii)	States or uses h = 0.8 OE	1.1b	B1	$h = \frac{8-4}{5}$ $A = \frac{0.8}{2}\left(7.3891 + 10.9196 + 2(6.1240 + 6.3249 + 7.2155 + 8.7139)\right)$ $= 30.026$
	Substitutes all the given y values and their answer from 6(a)(i) to achieve $7.3891 + 10.9196 + 2(6.124 + 6.3249 + 7.2155 + 8.7139)$ FT their 7.2155 PI 75.0653 Accept correct exact values or values to more than 4 decimal places. Condone omission of the bracket after 8.7139	1.1a	M1	
	Obtains AWRT 30.026	1.1b	A1	
	Subtotal		**3**	

Q	Marking instructions	AO	Marks	Typical solution
6(b)	States that the curve is **convex** or **concave upwards** Accept **concave up** **Or** States that $\frac{d^2y}{dx^2} > 0$	2.4	E1	The curve is convex, so the trapezium rule gives an over-estimate. Therefore, the student is incorrect.
	Explains that the trapezium rule gives an **over-estimate** **and** deduces that the student is incorrect	2.4	E1	
	Subtotal		**2**	

	Question 6 Total		**6**	