Question	Scheme	Marks	AOs
3(a)	$h = 0.1$	B1	1.1a
	$A \approx \dfrac{0.1}{2}\{1.632 + 1.930 + 2(1.711 + 1.786 + 1.859)\}$	M1	1.1b
	$= 0.714$	A1	1.1b
		(3)	
(b)	$\displaystyle\int_{0.5}^{0.9}\left(3\mathrm{f}(x) + 2\right)\,dx = 3 \times "0.714" + \ldots$	M1	1.1b
	$\displaystyle\int_{0.5}^{0.9}\left(3\mathrm{f}(x) + 2\right)\,dx = \ldots + 2 \times 0.4$	M1	3.1a
	$\displaystyle\int_{0.5}^{0.9}\left(3\mathrm{f}(x) + 2\right)\,dx = 3 \times "0.714" + 0.8 = 2.942$	A1ft	2.2a
		(3)	
		(6 marks)	

Notes

(a)

B1: States or uses $h = 0.1$

M1: Correct attempt at the trapezium rule. Must be an attempt at the correct structure e.g.

$\dfrac{h}{2}\{y_{0.5} + y_{0.9} + 2(y_{0.6} + y_{0.7} + y_{0.8})\}$ with brackets as shown unless they are implied by subsequent work

A1: For awrt 0.714

(b)

M1: For multiplying their answer to part (a) by 3

M1: For a correct strategy for the "+ 2" part of the integral. May see e.g. 2×0.4 or $2 \times (0.9 - 0.5)$

or $\displaystyle\int_{0.5}^{0.9} 2\,dx = \left[2x\right]_{0.5}^{0.9} = 2 \times 0.9 - 2 \times 0.5$

A1ft: For awrt 2.94 or follow through $3 \times$ their answer to part (a) + 0.8