

Question	Scheme	Marks	AOs
2(a)	Complete method to find $U$	M1	3.1b
	$10 = U - 12 \times 0.5$	A1	1.1b
	$U = 16$	A1	1.1b
		(3)	
2(b)	$AB$ = Total Area under the graph	M1	3.1b
	e.g. $= (10 \times 50) + \frac{1}{2} \times 12 \times (16 - 10) + \frac{1}{2} \times 20 \times 5$	A1ft	1.1b
	OR $= \frac{1}{2} \times 12 \times (16 + 10) + (10 \times 18) + \frac{1}{2} \times 20 \times (15 + 10)$	A1ft	1.1b
	OR use of <i>suvat</i> for each of the 3 sections and then add		
	$= 586 \text{ (m)}$	A1	1.1b
		(4)	

(7 marks)

Notes:

(a)	M1	Condone sign errors
	A1	Correct equation in $U$ only
	A1	cao
(b)	M1	Complete method to find area (must include all elements and have correct structure) or use of <i>suvat</i> on each section and then added
	A1ft	Correct unsimplified expression for $AB$ , ft on their $U$ , seen or implied, with at most one error
	A1ft	Correct unsimplified expression for $AB$ , ft on their $U$ , seen or implied
	A1	cao