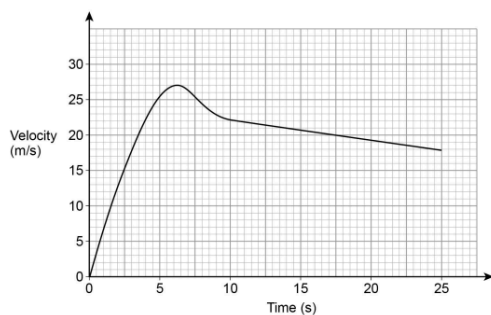


Q1. (2017)

23

Here is a velocity-time graph of a motorbike for 25 seconds.



(A)

23(a)	[6, 6.5]	B1	
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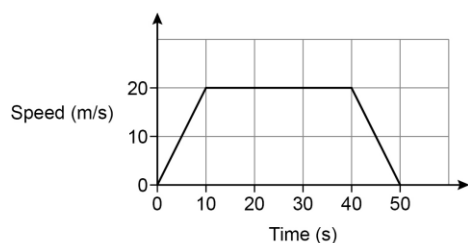
(B)

23(b)	Alternative method 1		
	$\frac{1}{2} \times (22 + 18) \times (25 - 10)$ or $15 \times 18 + \frac{1}{2} \times 15 \times 4$	M1	oe
	300	A1	
	Alternative method 2		
	20×15	M1	
	300	A1	
Additional Guidance			
Alternative method 2 uses average velocity $\times$ time			

Q2. (2022)

25

Here is the speed-time graph for a 50-second journey.



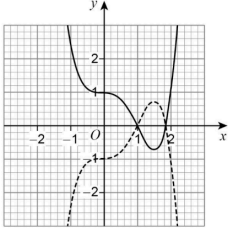
(A)

Q	Answer	Mark	Comment
25(a)	0	B1	

(B)

Q	Answer	Mark	Comment
25(b)	$\frac{1}{2} \times (50 + 30) \times 20$	M1	oe complete method to work out the area of the trapezium eg $\frac{1}{2} \times 10 \times 20 + 20 \times 30 + \frac{1}{2} \times 10 \times 20$ or $50 \times 20 - \frac{1}{2} \times 10 \times 20 - \frac{1}{2} \times 10 \times 20$ or 40×20
	800	A1	
	Additional Guidance		

Q3. (2022)

Q	Answer	Mark	Comment
27	Reflection of given graph in the x -axis	M1	mark intention
	Correct shape of graph from $([-1.5, -1], -3)$ through $(0, -1)$ through $(1, 0)$ maximum at $([1.4, 1.6], [0.6, 0.8])$ through $(1.8, 0)$ to $([2, 2.5], -3)$	A1	
	Additional Guidance		
		M1A1	
	Feathering or double lines or a split line, but intention to reflect in the x -axis	M1A0	