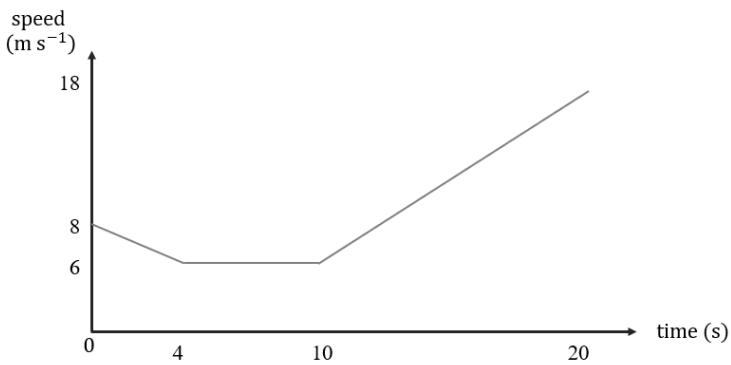


QUESTION NUMBER	SCHEME	MARKS
2(a)	$v = u + at$: $w = 8 + (-0.5)(4)$ (the value of w may not be seen)	M1
	$v = u + at$: $v = w + (1.2)(10)$	M1
	$v = 18^*$	A1*
		(3)
2(b)		B1 shape B1 time labels 4, 10, 20 B1 speed labels 6, 8, 18
		(3)
2(c)	Clear attempt to find distance using the area under their graph from $t = 0$ to $t = 20$ or another suitable method, <u>even if they are using the wrong shapes.</u> $\text{Distance} = \frac{(8 + "6") \times 4}{2} + (6 \times "6") + \frac{("6" + 18) \times 10}{2}$ $\text{OR } = (6 \times 4) + \frac{1}{2} \times 4 \times (8 - 6) + (6 \times 6) + (6 \times 10) + \frac{1}{2} \times 10 \times (18 - 6)$	M1 A1ft A1ft
	$= 184 \text{ (m)}$	A1
		(4)
		(10)
Notes for question 2		
(a) M1 M1 A1*	Complete method for finding the velocity (w) when $t = 4$ M0 if $u = 0$. N.B. 6 on its own can imply this mark. Method completed to show the speed when $t = 20$ M0 if initial speed is not w . Fully correct solution leading to given answer	
(b) B1 B1 B1	Correct shape of graph Correct time labels Correct speed labels N.B. Solid vertical line(s) B0 for the shape.	
(c) M1 A1ft A1ft A1	Complete method to find distance travelled in 20 seconds. May use speed-time graph or <i>suvat</i> equations for three sections (28m, 36m, 120m) of the journey. Award this mark for a clear attempt to find the area and penalise errors in the A marks. M0 if graph does not have three sections. A1ft Equation with at most one error, ft their "6" A1ft Correct equation, ft their "6" A1 Correct final answer	