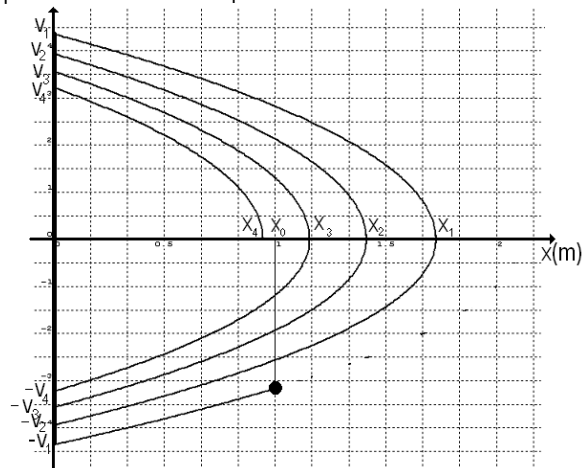


MARKING SCHEME FOR ANSWERS TO THE THEORETICAL QUESTION I

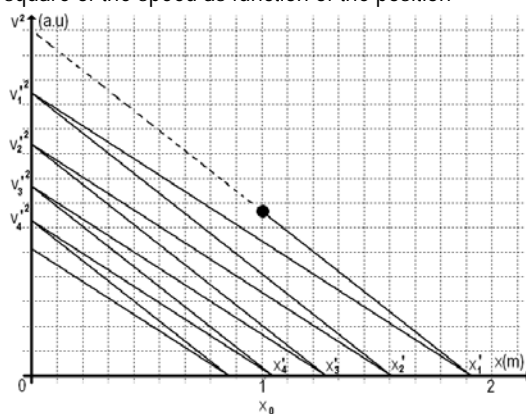
Part	MARKING SCHEME - THE THEORETICAL QUESTION I- JUMPING PARTICLE	Total Scores
I.a.	<p>For: the distance D covered by the particle to the stop</p> $\begin{cases} W(x_0) = D \cdot F_f \\ U(x_0) + E_c = D \cdot F_f \\ F_x \cdot x_0 + E_c = D \cdot F_f \end{cases}$ $D = \frac{ F_x \cdot x_0 + E_c}{F_f}$ <p>final result $D = 20\text{ m}$</p>	<p>2.00 points</p> <p>1.00 p</p> <p>0.50 p</p> <p>0.50 p</p>
I.b.	<p>For: $U(x) = F_x \cdot x$</p>	<p>2.00 points</p> <p>1.00 p</p> <p>1.00 p</p>
I.c.	<p>For : the evolution of the square of the speed as function of the position</p>	<p>4.00 points</p> <p>1.00 p</p>

the evolution of the speed as function of the position



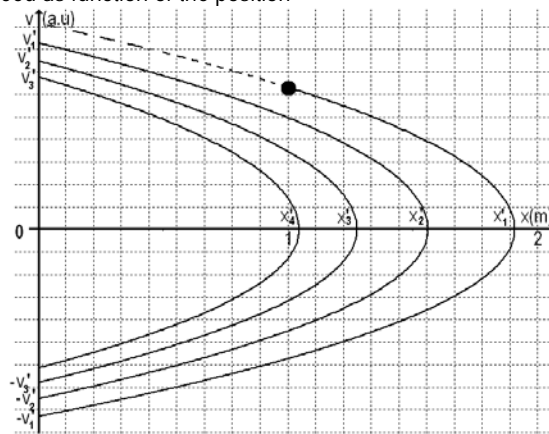
1.00 p

or
the evolution of the square of the speed as function of the position



1.00 p

the evolution of the speed as function of the position



1.00 p

Total score - theoretical question I

8.00
points

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