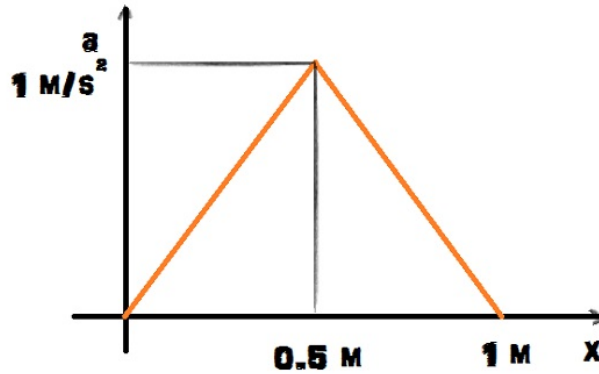


Example: A body, initially at rest, starts moving along x-axis in such a way that its acceleration vs displacement plot is as shown in the Figure. The maximum velocity of the particle is



- a) 1 m/s
- b) 6 m/s
- c) 2 m/s
- d) None of these

{ Hint : The area under the a-x graph gives change in $\frac{v^2}{2}$ as can be evaluated by Integration method. The area of triangle is $(0.5) \times (1) \times (1) = 0.5$

$\Rightarrow v = 1\text{m/s}$. Initial position is given to be 0 in the graph. Hence, we take only the positive sign.

Answer : a) is the correct answer. }