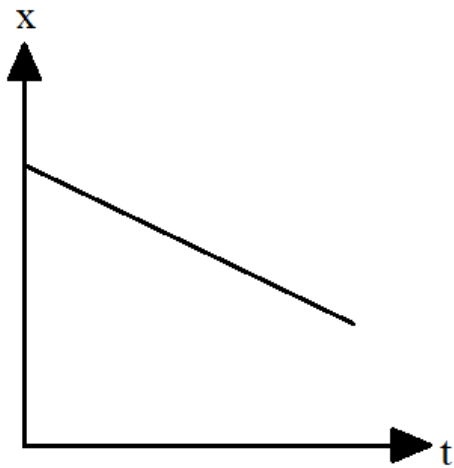
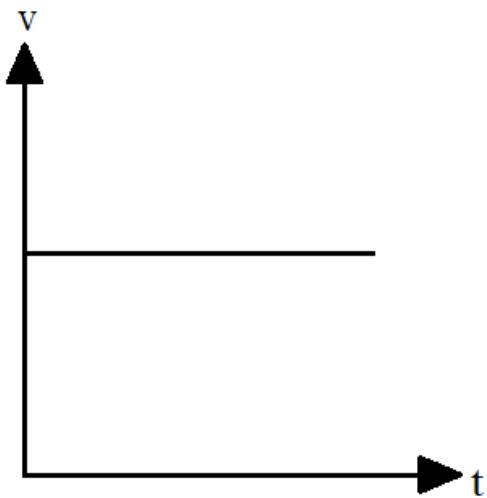


Which of the following graphs represents an object that is slowing down?

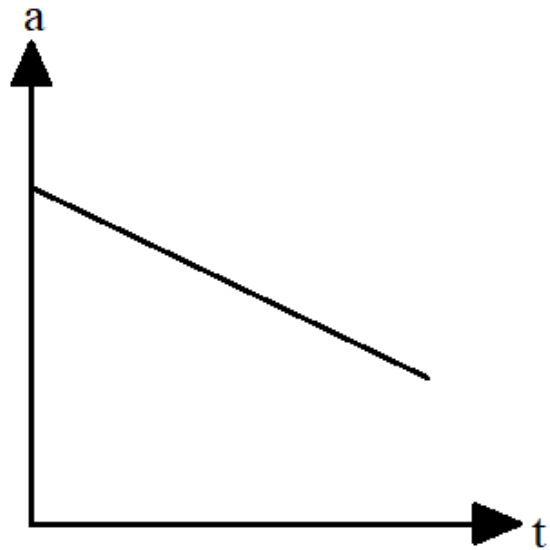
A)



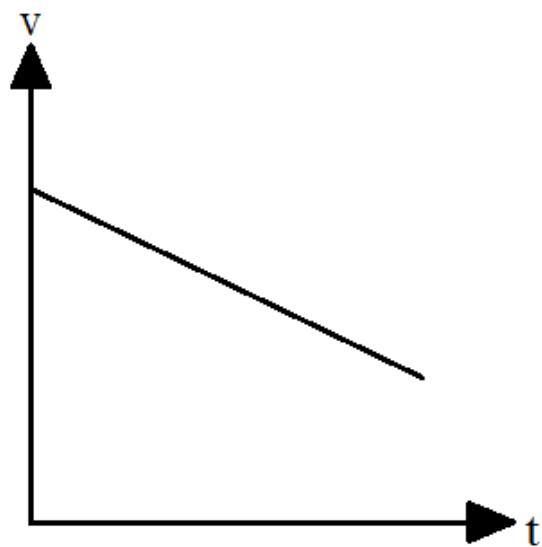
B)



C)



D)



Solution

The correct answer is (D).

An object is slowing down when its speed v decreases with time.

The first option shows a uniform motion (motion with the same speed) of an object actually in the positive part of the X-axis but heading toward the negative direction. Hence, it is not slowing down but moving at constant speed.



The second option also shows an object moving at a constant speed as the value of v remains constant over time.

The third option shows an object which is speeding up (as acceleration is positive) although at a slower rate of speed increase.

The fourth option shows a slowing down object as the speed decreases with time.