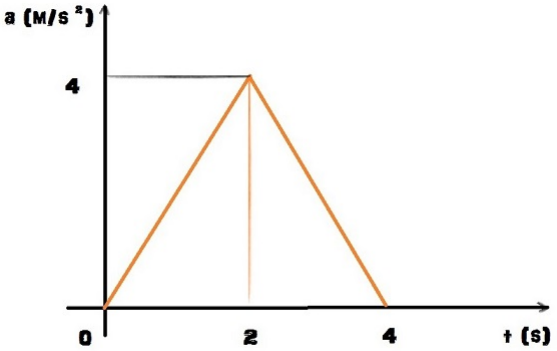
Example: Acceleration-time graph of a particle moving in a straight line is shown in Figure. The velocity of particle at time t = 0 is 2 m/s. Velocity at the end of fourth second is



a) 8 m/s

b) 10 m/s

c) 12 m/s

d) 14 m/s

{ Hint: Area under the acceleration-time graph is change in velocity. Area of the triangle is Half (into) base (into) altitude = 8m/s. Adding the initial value of 2m/s , we get 2 + 8 = 10m/s.

Answer: b) is the correct answer }