a particle p travels in a straight line from A to D passing through the point B and C .for the section AB, the velocity of the particle is (0.5t-0.01t^2), where tsecs is the time after living A. given that the ACCELAration of P at B is 0.1ms^-2. find the time taken for P to travel from A to B

**Solution**

$$V(t) = 0.5t - 0.01t^2$$

$$a = V'(t) = 0.5 - 0.01 * 2t = 0.5 - 0.02t$$

$$a(B) = 0.1 = 0.5 - 0.02t_B \gg t_B = \frac{0.5 - 0.1}{0.02} = \frac{0.4}{0.02} = 20s.$$

**Answer: 20s.**