1. During a lecture demonstration, a cart is moving along a straight track. Your instructor records the position of the cart (relative to its location at time t = 0) at different times. Using the recorded data below, find the average acceleration (in  $m/s^2$ ) of the cart during the time interval from 0 to 3 seconds.

t (time in s)	x (position in m)
0	0.0
1	0.1
2	0.2
3	0.3