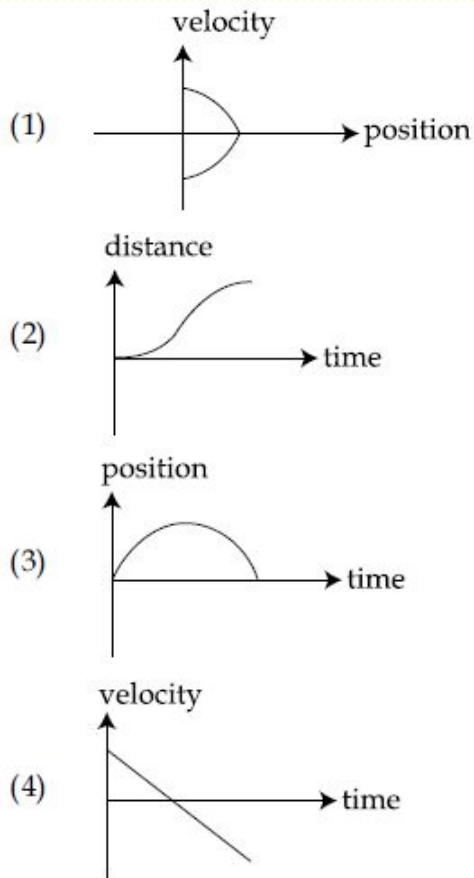| All the graphs below are intended to represent the same motion. One of them does it incorrectly. Pick it up.	Option (1) shows motion of a particle having non-zero velocity at x = 0 that slows down, stops, reverses the direction of motion and comes back to x = 0 having velocity in opposite direction.
velocity (1) →position distance (2) →time position (3) →time velocity (4) →time	Option (2) shows $\dfrac{ds}{dt} = 0$ or zero instantaneous speed at t = 0. This is in contradiction to option (1) that has non-zero instantaneous velocity. Option (3) shows $\dfrac{dx}{dt} \neq 0$ at t = 0. The particle comes back to x = 0 position after some time. It stops momentarily when the slope of the graph becomes zero. This is in line with option (1). Option (4) shows non-zero velocity at t = 0. After some time the particle stops, reverses the direction of motion and eventually has the same magnitude of velocity but opposite direction. Clearly, Option (2) is the odd-man out. Based on JEE Main 2018 - 123IITJEE