

Homework H1.A

Given: Pin P moves within slots cut into links A and B. The horizontal position of link A is given by $x = 2\alpha + \beta t^2$, whereas the vertical position of link B is given by $y = 3\alpha - \gamma t^3$, where t is given in s, x and y are given in mm, $\alpha = 5$ mm, $\beta = 1$ mm/s² and $\gamma = 1$ mm/s³.

Find: Determine the velocity and acceleration of P at $t = 3$ s.

