

Quiz on Applications of Derivatives (50 Points)

- Know AROC, IROC, marginals, and motion (ie velocity)
 - IROC – rate of change at an instant such as $t=1$ sec
 - Marginals
 - $p = f(x)$ ← demand function
 - $R = xp$
 - $P = R - C$
 - Profit = Revenue – Cost
 - Motion
 - Average velocity = $\frac{\Delta \text{distance}}{\Delta \text{time}}$
 - Position function of a free falling object: $h = -16t^2 + v_0t + h_0$; v_0 is the initial velocity, h_0 is the initial height
 - Velocity function: $h' = -32t + v_0$
 - Acceleration function: $h'' = -32$