

DIFFERENTIATION & APPLICATIONS (Q 6 & 7, PAPER 1)

LESSON NO. 12: RATES OF CHANGE

2004

7 (a) An object's distance from a fixed point is given by $s = 12 + 24t - 3t^2$, where s is in metres and t is in seconds. Find the speed of the object when $t = 3$ seconds.

ANSWER

$$\mathbf{2004\ 7\ (a)\ \left(\frac{ds}{dt}\right)_{t=3} = 6\ \text{m s}^{-1}}$$