

Kinematics Exercises (1 page; 11/3/17)

(1) Given that $v(x) = 10e^{-x}$ and that $x = 0$ when $t = 0$, find:

(i) the acceleration as a function of x

(ii) x as a function of t

(iii) v as a function of t

(iv) the acceleration as a function of t

(2) Given that the acceleration of a particle, $a(x) = x + 1$, and that $x = 0$ and $v = 1$ when $t = 0$, find x in terms of t for $x > 0$.