

Mechanics Exercise 8A

i) $h = 0.36x - 0.003x^2$

a) i) $x = 0 \Rightarrow h = 0.36 \times 0 - 0.003 \times 0^2 = 0$

ii) $x = 100 \Rightarrow h = 0.36 \times 100 - 0.003 \times 100^2 = 6 \text{ m}$

b) $x = 200, h = 0.36 \times 200 - 0.003 \times 200^2$
 $h = -48 \text{ m}$

c) Inappropriate as h is negative
Model not applicable for values of x
where h is negative

Kinematics - constant acceleration