

R&C HW 3

1. A curve has equation $y = x - \frac{16}{\sqrt{x}}$, $x > 0$

Find the equation of the tangent at the point where $x = 4$ **(6)**

2. A ball is thrown vertically upwards.

After t seconds, its height is h metres, where $h = 1.2 + 19.6t - 4.9t^2$

(a) Find the speed of the ball after 1 second **(3)**

(b) For how many seconds is the ball travelling upwards? **(2)**