Question#18785

a mango fruit droped to the ground from the tip of its tree which is 5m high. how long does it take to reach the ground?

Solution:

On free falling:

$H = H_0 - \frac{1}{2}gt^2$, were $H_0 = 5\ m, H = 0, g = 9.8\ m/s^2$

$\frac{1}{2}gt^2 = H_0$

$$t = \sqrt{\frac{2H_0}{g}}$$

$$t = \sqrt{\frac{2*5}{9.8}} \approx 1\ sec$$

Answer: 1 sec