

Equations for Uniformly
Accelerated motion in 1D

1	$x-x_0 = \Delta x = v_{avg}t$
2	$v_{avg} = \frac{v_0+v}{2}$
3	$x-x_0 = \Delta x = \frac{v_0+v}{2}t$
4	$v=v_0 + at$
5	$v_{avg} = v_0 + \frac{1}{2}at$
5	$x-x_0 = v_0t + \frac{1}{2}at^2$
6	$x-x_0 = vt - \frac{1}{2}at^2$
7	$x-x_0 = \frac{v^2-v_0^2}{2a}$

For free Fall, $x \rightarrow y; a \rightarrow -g$

$$g = 9.8 \frac{m}{s^2} = 32 \frac{ft}{s^2}$$

1	$y-y_0 = \Delta y = v_{avg}t$
2	$v_{avg} = \frac{v_0+v}{2}$
3	$y-y_0 = \frac{v_0+v}{2}t$
4	$v=v_0 - gt$
5	$v_{avg} = v_0 - \frac{1}{2}gt$
5	$y-y_0 = v_0t - \frac{1}{2}gt^2$
6	$y-y_0 = vt + \frac{1}{2}gt^2$
7	$y-y_0 = \frac{v_0^2-v^2}{2g}$