Equation 1

The equations of uniformly accelerated motion can be derived from this graph. The acceleration, a, is the gradient (slope) of the graph.

The object's initial velocity is u. The final velocity after time, t, is v.

The change in velocity is: $v - u$.

The gradient of the graph is calculated from the equation:

$$a = \frac{v - u}{t}$$

This equation can be rearranged by multiplying both sides by t and then adding u to both sides to give Equation 1:

$$v = u + at$$