Class Test 1 Equations:

- $a = \frac{dv}{dt} = \frac{d^2s}{dt^2}$
- $ads = vdv$
- $s = s_0 + vt$
- $v = v_0 + at$
- $s = s_0 + v_0 t + \frac{1}{2}at^2$
- $v^2 = v_0^2 + 2a(s - s_0)$
- $a = a_x i + a_y j + a_z k$
- $a = \sqrt{a_x^2 + a_y^2 + a_z^2}$
- g=9.81m/s^2
- $x = x_0 + (V_0)_x\, t$
- $y = y_0 + v_{y_0} t - \frac{1}{2}gt^2$
- $v_y^2 = v_{0y}^2 - 2g(y - y_0)$
- $v_y = v_{0y} - gt$
- $a_n = \left(\frac{v^2}{\rho}\right)$
- $a = \sqrt{a_n^2 + a_t^2}$
- $v = v_0 + (a_t)_c t$
- $ax^2 + bx + c = 0 \qquad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$