Physics 1210
Spring 2016
Prof. Jang-Condell

Equation Sheet For Exam #1

$$v_{avg} = \frac{x_2 - x_1}{t_2 - t_1} = \frac{\Delta x}{\Delta t} \qquad \vec{v} = \frac{d\vec{r}}{dt} \qquad a_{avg} = \frac{v_2 - v_1}{t_2 - t_1} = \frac{\Delta v}{\Delta t} \qquad \vec{a} = \frac{d\vec{v}}{dt} \qquad g = 9.80 \text{ m/s}^2$$

$$x_1 = x_0 + v_0 t + \tfrac{1}{2}at^2 \qquad v_1 = v_0 + at \qquad v_1^2 = v_0^2 + 2a(x_1 - x_0) \qquad a_{rad} = \frac{v^2}{R} = \frac{4\pi^2 R}{T^2}$$

$$\sum \vec{F} = m\vec{a} \qquad \vec{w} = m\vec{g} \qquad f_s \leq \mu_s N \qquad f_k = \mu_k N \qquad f = kv \qquad f = Dv^2$$