

Answers Exam 1 2016

$$1. \quad x(t) = \frac{c_1 t^2}{2} + \frac{c_2 t^3}{3} + A - 2c_1 - \frac{g}{3} c_2$$

$$2. \quad x(t^*) = \frac{c_1}{6\mu} \left(\frac{2\tau_1 \mu}{c_1} \right)^{3/2} - \tau_1 \left(\frac{2\tau_1 \mu}{c_1} \right)^{1/2}$$

$$3. \quad N_1 = \frac{P(\cos \theta - \mu \sin \theta)}{1 + \frac{W_2}{W_1}}$$

$$4. \quad x(t^*) = \frac{3}{16} \left(\frac{2\tau_w \sin \theta}{g} \right)^3 + \tau_w \cos \theta \frac{2\tau_w \sin \theta}{g}$$