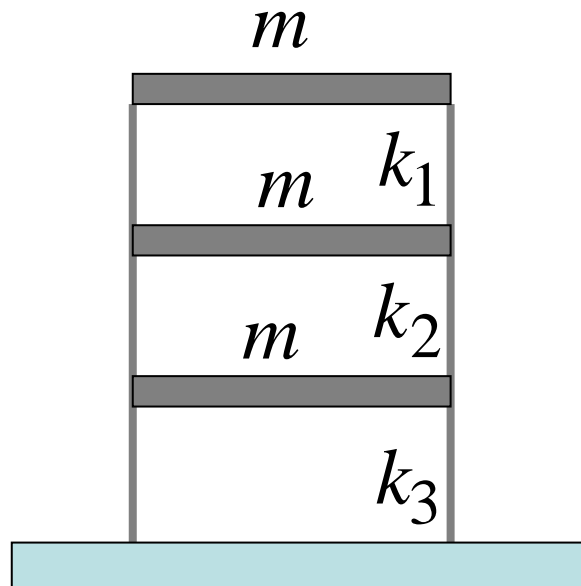Assignment 3 (June 19, submit by June 26, 2012)

Compute and plot time history of relative displacement, relative velocity, relative acceleration and absolute accelerations of a 3 DOF structure subjected to JMA Kobe ground acceleration during the 1995 Kobe earthquake. Follow Example 5. Assume that damping ratio is 0.05 for all modes.

$$k_1 = k_2 = k = 3050.9 kN / m$$

$$k_3 = 2k$$

$$m = 150 kN / g = 150 / 9.8 \, kNs^2 / m$$