

Problem 1.124



$$m = 2 \text{ kg}$$

$$k = 10^3 \text{ N/m}$$

$$\mu = 0.153$$

$$F_d = \mu mg = 3 \text{ N}$$

$$\Delta A = -20 \text{ cm} = -0.2 \text{ m}$$

Find: Δt

$$\text{Solution: } \frac{\Delta A}{\Delta t} = \frac{-2(F_d)\omega_n}{\pi k}$$

$$\frac{-0.2}{\Delta t} = \frac{-2(3)\sqrt{\frac{1000}{2}}}{\pi (1000)}$$

$$\boxed{\Delta t = 4.68 \text{ s}}$$

Homework Problem 1.125