

Problem P8

A slider (mass = 0.60 kg) is made to slide in a smooth slot through the application of a force,  $P$ , that is tangential to the slot. The slot is described by a spiral curve  $r = 1.5 \theta$  meters. The angular rate is a constant,  $\dot{\theta} = -4.0$  rad/second, and  $\theta = 90^\circ$ . In this configuration, calculate the magnitude of  $P$  required to produce this motion and determine the normal force being exerted by the side of the slot on the slider.

