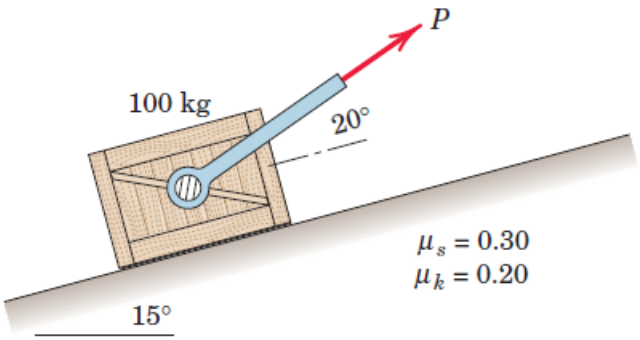
Session: 3

1. The coefficients of static and kinetic friction between the 100-kg block and the inclined plane are 0.30 and 0.20, respectively. Determine (*a*) the friction force *F* acting on the block when *P* is applied with a magnitude of 200 N to the block at rest, (*b*) the force *P* required to initiate motion up the incline from rest, and (*c*) the friction force *F* acting on the block if *P* = 600 N.



2. The 700-N force is applied to the 100-kg block, which is stationary before the force is applied. Determine the magnitude and direction of the friction force *F* exerted by the horizontal surface on the block.