

In the illustration, a block of mass $m_2 = 10$ kg rests on a slab of mass $m_1 = 40$ kg. Between the block and the slab, the coefficient of static friction is 0.60, and the coefficient of kinetic friction is 0.40. The block is pulled by a horizontal force F of magnitude 100 N.

What are the resulting accelerations of (a) the block and (b) the slab?

