

Week 45 (7/21/03)

Sliding along a plane

A block is placed on a plane inclined at angle θ . The coefficient of friction between the block and the plane is $\mu = \tan \theta$. The block is given a kick so that it initially moves with speed V horizontally along the plane (that is, in the direction perpendicular to the direction pointing straight down the plane). What is the speed of the block after a very long time?