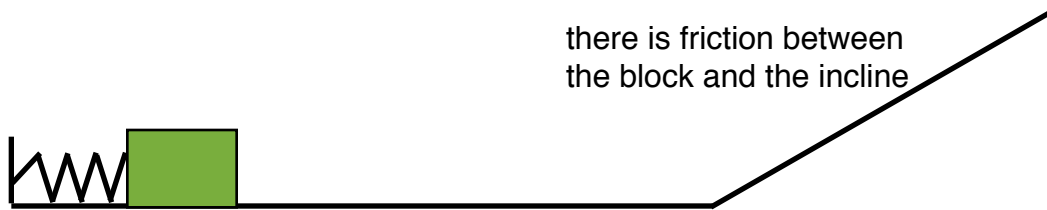


Energy - Problem 2



A block of mass 0.40 kg slides on a frictionless, horizontal surface. It is pushed against a spring with spring constant $k = 400\text{ N/m}$. The spring is compressed 0.20 m and then the block is released from rest. The block then slides up a 30° incline. The coefficient of kinetic friction between the block and the incline is 0.15 . (The horizontal part of the surface is frictionless).

How far up the incline does the block travel before it stops and comes back down?