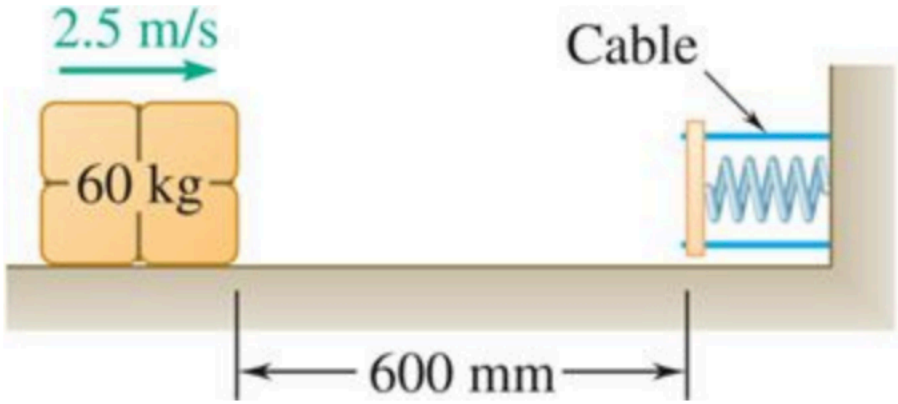
Sample Problem 13.3

A spring is used to stop a 60 kg package which is sliding on a horizontal surface. The spring has a constant k = 20 kN/m and is held by cables so that it is initially compressed 120 mm. The package has a velocity of 2.5 m/s in the position shown and the maximum deflection of the spring is 40 mm.



Determine:

a. the coefficient of kinetic friction between the package and surface
b. the velocity of the package as it passes again through the position shown.