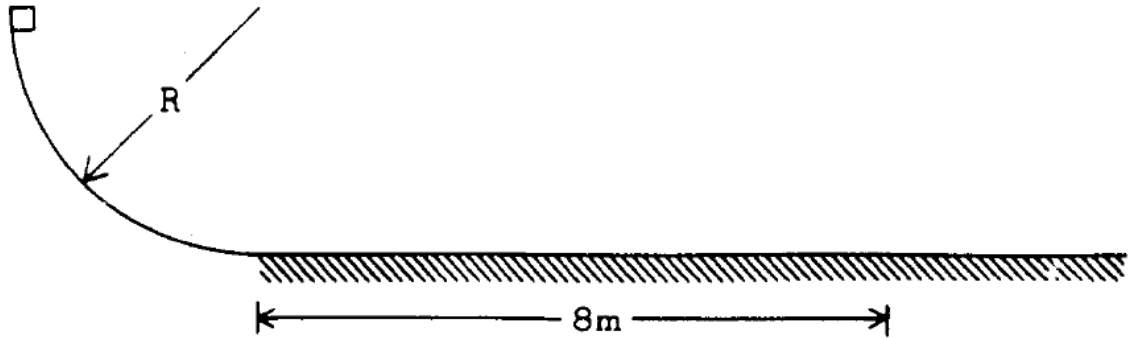**More conservation of energy problems**

1. A 2-kilogram block is released from rest at the top of a curved incline as shown. The block is released at a height of 1.5 m. The curved incline is frictionless, but there is friction while the block slides horizontally. Determine the coefficient of friction of the horizontal surface. *(μ_k = 0.2)*

2. Li Ping Phar, the politically incorrect ski jumper, starts at a height of 45.0 m above the cliff drop-off level. She has a mass of 60.0 kg. The cliff is 38.0 meters tall. How far from the base of the cliff will she land? *(Δx = 82.6 m)*