Calculating Work

Related video: *07 – Calculating work*

A 1.5 kg box, starting from rest, is pushed a distance of 4.0 m up a hill. The slope of the hill is 30. degrees. The pushing force has a magnitude of 50. N. It acts horizontally. In addition, there is a friction of 2.0 N.

What is the speed of the box after the 4.0 m?

a) Solve this problem WITH conservation of energy
b) Solve this problem WITHOUT conservation of energy
c) Which one do you think is easier?