## Spring Energy Problem

Name: $\qquad$ Date: $\qquad$ A 22 kg crate slides from rest down a ramp inclined at $29^{\circ}$ to the horizontal onto a spring of force constant $890 \mathrm{~N} / \mathrm{m}$. The spring is compressed a distance of 0.30 m before the crate stops. Determine the total distance the crate slides along the ramp. Friction is negligible.


