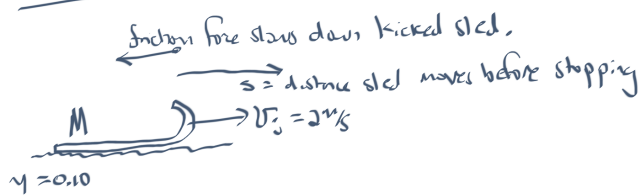


## Sled on a pond



work-KE theorem  $W = KE_f - KE_i$

$$f s \cos \theta = 0 - \frac{1}{2} m v_i^2$$

$$f s (-1) = -\frac{1}{2} m v_i^2$$

$$- \mu N s = -\frac{1}{2} m v_i^2$$

$$\mu \cancel{m} g s = \frac{1}{2} \cancel{m} v_i^2$$

$$s = \frac{v_i^2}{2 \mu g} \approx \text{2 meters}$$