P #A

Ch 11 - WS

$m = m$

$\mu = .65$

$\Delta T = 2.50\,^{\circ}C$

$c = 448\ J/kg\cdot{}^{\circ}C$

$\frac{1}{2}$ Work by friction $= Q$

$\frac{1}{2} \cdot F_f \cdot d = m \cdot c \cdot \Delta T$

$\frac{1}{2} \cdot (\mu \cdot m \cdot g) \cdot d = m \cdot c \cdot \Delta T$

$\frac{1}{2}(.65)(9.8\ m/s^2) \cdot d = (448\ J/kg\cdot{}^{\circ}C)(2.5\,^{\circ}C)$

$\boxed{d = 350\ m}$