

Hw10a

Tuesday, September 20, 2016

4:44 PM

Crate: $W_g = -Mg D \sin \theta$

$$W_P = PD \cos \theta$$

$$W_N = 0$$

$$W_f = -\mu (Mg \cos \theta + P \sin \theta) D$$

$$v_f = \sqrt{\frac{2W_{\text{net}}}{m}}$$

graphical work: 90 Nm, 50 Nm, 9.5 m/s, 7.1 m/s

Nonconst. force: 0, 0, $-\frac{1}{2}cD^3$, 0

Cart:

$$v_f = \sqrt{\frac{2}{M} (F_0 D + \frac{1}{4} c D^4 - MgH)}$$