HW06a

Monday, September 5, 2016 4:56 PM

Dwarves: $P = (M+m)a = 800N$

$T = ma = 200N$

$T = Ma = 600N$

Atwood: $a = \frac{M-m}{M+m} g$ $\quad T = \frac{2mM}{M+m} g$

Double incline:

$a_x = \frac{M\sin\alpha - m\sin\beta}{M+m} g$ $\quad T = \frac{Mmg(\sin\alpha + \sin\beta)}{M+m} = 8.8N$

$a_x = 0.5 \frac{m}{s^2}$ down right ramp

3 Boxes: $\theta = \arctan\left(\frac{m}{M+m}\right)$