

1. $T = 2W / \cos \theta$, $S_x = 2W \tan \theta$, $S_y = 3W - T \cos \theta = W$

2. Box $P = \frac{WL}{2h \sin \theta}$ $\mu_{\min} = \frac{P \sin \theta}{Mg + P \cos \theta}$

3. $\mu_s = \cot \theta$ $T = \frac{Mg}{\mu \sin \beta + \cos \beta}$ 422 N

4. $d = \frac{3\mu_s L \sin \theta - L \cos \theta}{\cos \theta} = L (3\mu_s \tan \theta - 1)$