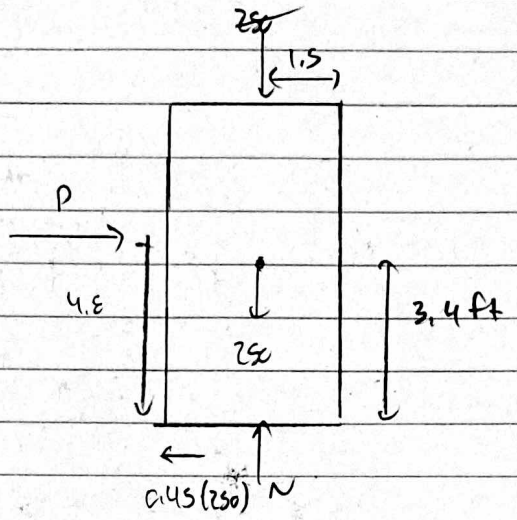
Solutions: 21-5-E.2-MU-05



$\mu_s = 0.45$

weight: 250 lb

Check for slipping

$\Sigma f_y = 0 = N - 250 \rightarrow N = 250$

$\Sigma f_x = 0 = P - 0.4(250) \rightarrow P = 100$ lb

Check for tipping

$\Sigma M = 0 = P(4.8) - 250(1.5) \rightarrow P = \frac{250(1.5)}{4.8} = 78.125$ lb

78.125 lb is lowest force