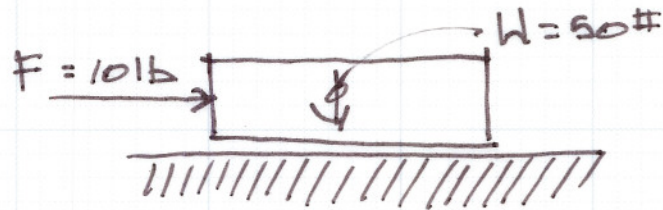


FOR THE BLOCK SHOWN, WHAT IS THE FACTOR OF SAFETY AGAINST SLIDING IF THE COEFFICIENT OF FRICTION = 0.5?



1) FIND THE RESISTANCE AGAINST SLIDING CONSIDERING THE WEIGHT OF THE BLOCK & THE COEFF. OF FRICTION.

$$\begin{aligned}\therefore \text{RESISTANCE} &= (W)(\text{COEFF. FRICTION}) \\ &= (50\#)(0.5) = 25 \text{ lb}\end{aligned}$$

2) FIND THE FACTOR OF SAFETY F.S.

$$\text{F.S.} = \text{RESISTANCE} / \text{DEMAND}$$

$$= 25\# / 10 \text{ lb} = \boxed{2.5 = \text{F.S.}}$$

Project: NCAER #21

Address:

Job No.:

Date: 4/2/08

Drawn By: HAN

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