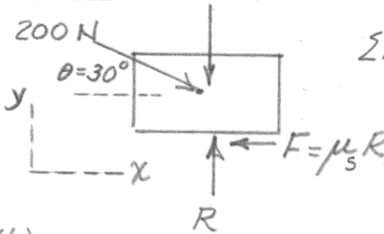


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(a) $\sum F_x = 0; 200 \cos 30^\circ - \mu_s R = 0$
 $\sum F_y = 0; R - 200 \sin 30^\circ - 50(9.81) = 0$
 $R = 590.5 \text{ N}$
 so $\mu_s = \frac{200 \cos 30^\circ}{590.5} = 0.293$

(b)
 For $\theta = 45^\circ$, $\sum F_x = 0$ gives $F = 200 \cos 45^\circ = 141.4 \text{ N}$
 which is $< \mu_s R_b$

WILEY