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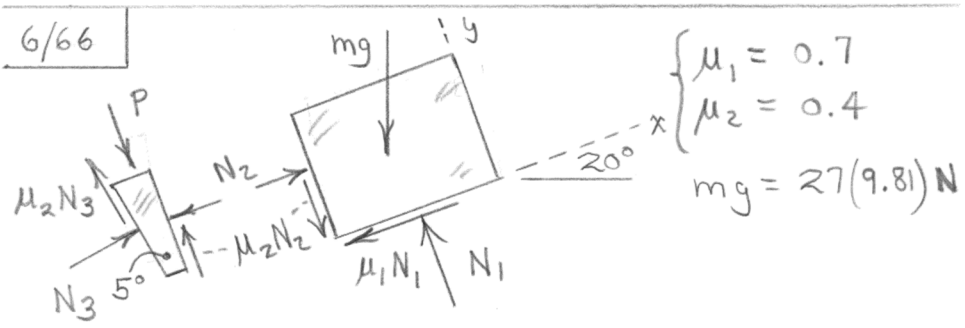

$\mu_1 = 0.7$

$\mu_2 = 0.4$

$mg = 27(9.81)$ N

Block:

$$\Sigma F_x = 0: \quad -mg\sin 20^\circ + N_2 - \mu_1 N_1 = 0 \qquad (1)$$

$$\Sigma F_y = 0: \quad -mg\cos 20^\circ + N_1 - \mu_2 N_2 = 0 \qquad (2)$$

Wedge:

$$\Sigma F_x = 0: \quad N_3\cos 5^\circ - \mu_2 N_3 \sin 5^\circ - N_2 = 0 \qquad (3)$$

$$\Sigma F_y = 0: \quad N_3\sin 5^\circ + \mu_2 N_3 \cos 5^\circ + \mu_2 N_2 - P = 0 \qquad (4)$$

Solution: $N_1 = 396$ N $\quad N_2 = 368$ N

$N_3 = 383$ N $\quad P = 333$ N