## Pb 4

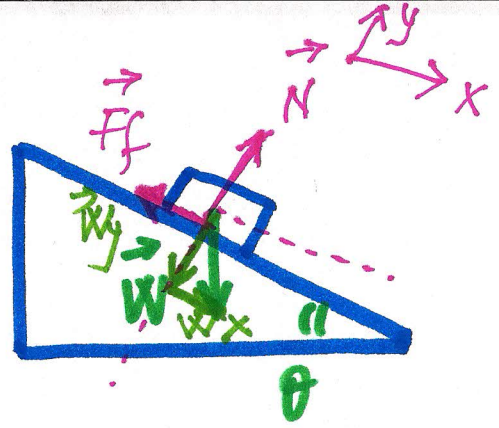
$m = 25.3\ kg$

$\theta_1 = 35°$

$\theta_2 = 27.5°$

a) $\mu_s = ?$

b) $\mu_d = ?$




a) x direction

$W_x = F_{fs}$

$m \cdot g \cdot \sin\theta = \mu_s \cdot N$

$* \quad \underline{\mu_s} = \dfrac{m \cdot g \cdot \sin\theta}{N}$

y direction

$N = W_y = m \cdot g \cdot \cos\theta$

$$\mu_s = \frac{m \cdot g \cdot \sin\theta}{mg \cdot \cos\theta} = \tan\theta_1$$

$\mu_d = \tan\theta_2$ (similar demonstration)