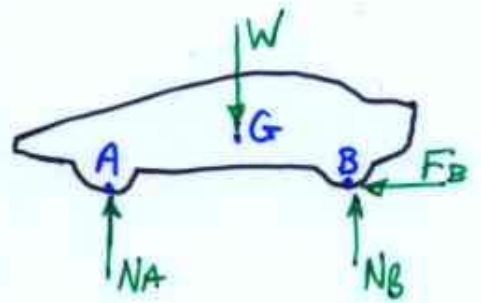


There was an <sup>SLIGHTLY</sup> easier way to solve problem E(6)

TAKE MOMENTS ABOUT POINT A  
then  $\vec{N}_A$  &  $\vec{F}_B$  HAVE ZERO MOMENT

$$\oplus \sum M_A = ma_{Gx}d$$



$$-W(1.25) + N_B(2.0) = +ma_{Gx}(0.3)$$

using ② from before i.e.  $N_B = \frac{2000a_{Gx}}{\mu_k}$

$$\text{gives } -W(1.25) + \left(\frac{2000a_{Gx}}{\mu_k}\right)(2.0) = +(ma_{Gx})(0.3)$$

$$\Rightarrow a_{Gx} = \frac{W(1.25)}{\left[\frac{(2000)(2.0)}{\mu_k}\right] - (2000)(0.3)} = \frac{(2000)(9.81)(1.25)}{\frac{(2000)(2.0)}{\mu_k} - (2000)(0.3)}$$

$$\underline{a_{Gx} = 1.5925 \text{ m s}^{-2}}$$

Note HOW  $a_{Gx}$  is  
INDEPENDENT of  $m$   
(i.e. we have "2000" above & below)

$a_{Gx}$  is a fn of "g" & geometry &  $\mu_k$ .