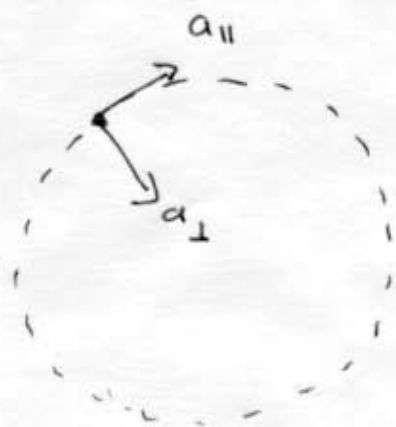


Car barely makes it $\Rightarrow N=0$

$$\Rightarrow f=0$$

$\Rightarrow$ cannot keep $v=\text{const}$

$\Rightarrow$ non-uniform circular motion



$$a_{\parallel} \neq 0$$

$$a_{\perp} = \frac{v^2}{R}$$

$v = \text{instantaneous velocity}$

$$mg \cos \theta = ma_{\perp}$$

$$g \cos \theta = \frac{v^2}{R}$$

$\Rightarrow$

$$v = \sqrt{g R \cos \theta}$$

max speed
at A to
just make
it

This is less than speed at B,

so car leaves road at A