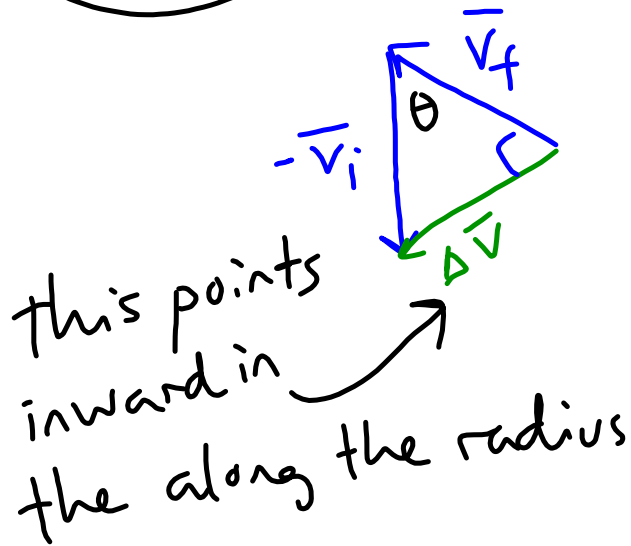


$$\begin{aligned}\bar{a} &= \frac{d\vec{v}}{dt} \\ &= \frac{\vec{v}_f - \vec{v}_i}{\Delta t}\end{aligned}$$

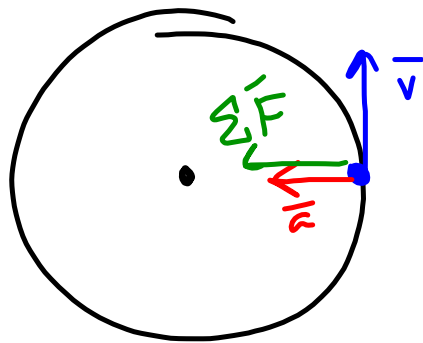


$$\bar{a} = \frac{\vec{v}_f - \vec{v}_i}{\Delta t} = \frac{v^2}{r}$$

centripetal acceleration

$$a_c = \frac{v^2}{r}$$

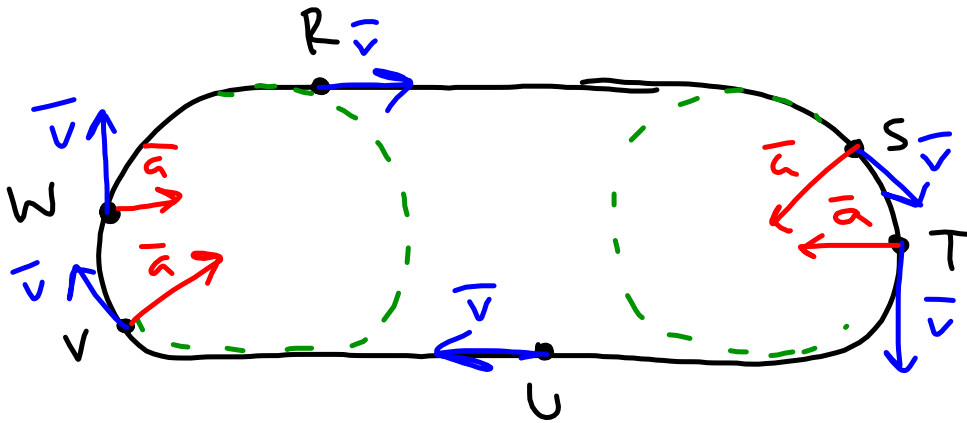
- if there is an acceleration, there must be some net force in the same direction



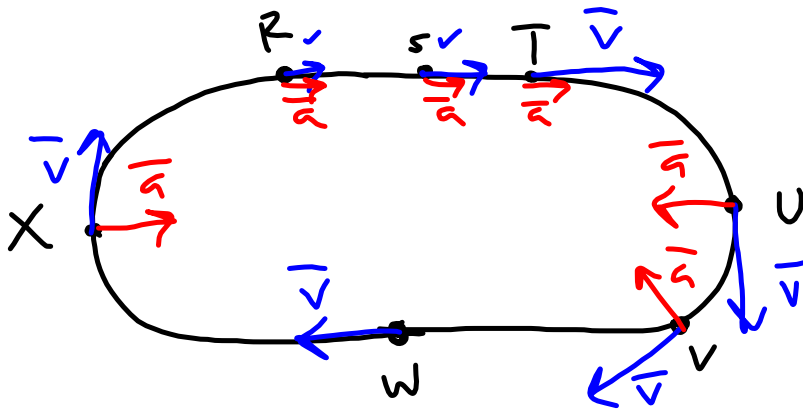
- "Centripetal force" is the "force" that provides the centripetal acceleration.
 - This has to be a REAL force!
 - Cannot write " F_c " on a FBD!

TIPERS

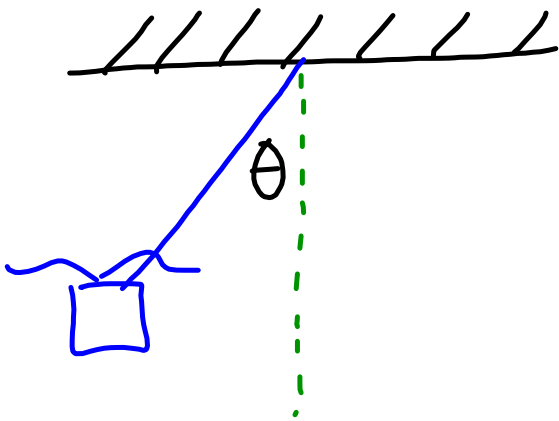
BZ-QRT27



BZ-QRT26



FLYING PIG CHALLENGE



- On whiteboard:
Measure/calculate the angle at which the pig flies two different ways, and compare.