Izzy Baumhust
Mr. Clark
AP Physics
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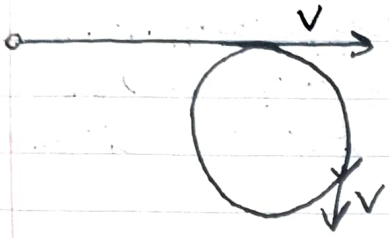
Class Notes (centripetal F & a)



A change in direction results in a change in velocity (acceleration).

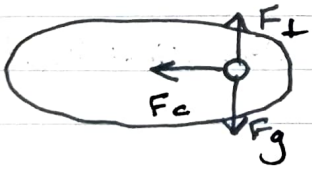
Acceleration is towards the center of the circle.

$\vec{a}_c$ = centripetal

$\Sigma F_c = m\vec{a}_c$

Centripetal forces create centripetal acceleration.

The direction of the force determines the direction of the acceleration.



If there is an object traveling on circular path, then

$F_c = m \cdot \frac{v^2}{r}$

This equation does not tell us the <u>cause</u>, like F_m,

$F_c = \frac{mv^2}{r} = M \cdot F_\perp$

It tells us the value/magnitude of the force