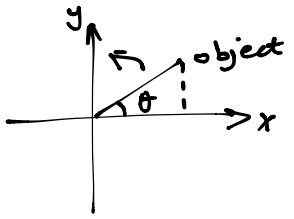
Jan 23rd



↖ positive direction

counter-clockwise ⇒ positive angular acc.

speed

Angular velocity (w) $= \frac{d\theta}{dt}$

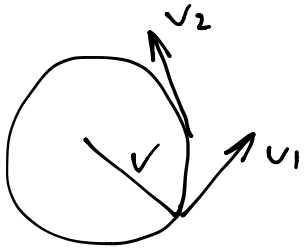
V_t and w are constant

$w_t = wr$

the centripetal acc. points toward the center of the circle

$a = v^2/r = w^2 r$

It changes the particles direction but not speed.



$\vec{a} = \frac{\Delta \vec{v}}{\Delta t} = \frac{\vec{v_2} - \vec{v_1}}{t_2 - t_1}$

Non-uniform

angular accelaration dw/dt

radical acc.

$a_r = v^2/r = w^2 r$

change the particle's direction. The tangential component

$a_t = \alpha r$

change particle's speed.