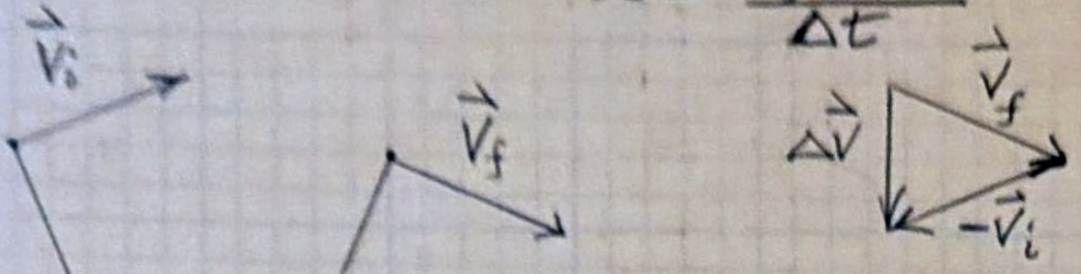
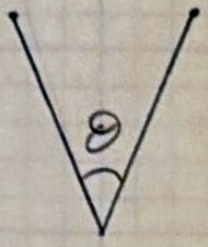
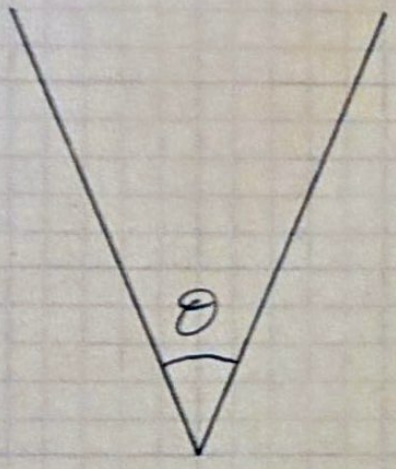
$$\vec{a} = \frac{\vec{v}_f - \vec{v}_i}{\Delta t}$$



halve r, $|\vec{v}|$ keeping θ the same. What happens



double $|\vec{v}|$, keeping θ the same. What happens?