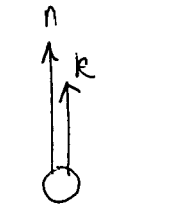
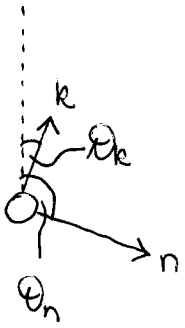
10.)



$\vartheta_{0k} = \vartheta_{0n} = 0$



$t = ?$

$\vartheta_n - \vartheta_k = \frac{\pi}{2}$

$$\boxed{\vartheta = \frac{\beta}{2}t^2 + \omega_0 t + \vartheta_0}$$

itt $\beta = 0$ és $\vartheta_0 = 0$

ω_n és ω_k = áll

$$\vartheta_n - \vartheta_k = \omega_n t - \omega_k t = (\omega_n - \omega_k)\, t = \frac{\pi}{2}$$

ω_n ... egy kör egy óra alatt

ω_k ... egy kör 12 óra alatt