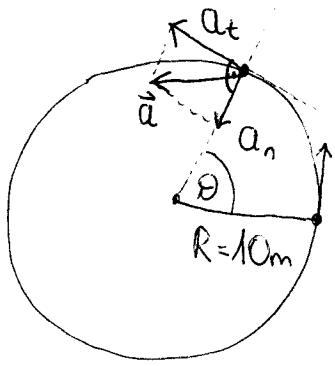
1.)



$a_t = 2\,m/s^2$

$t = 10s$

$v_k = ?$ $\quad a = ?$ $\quad \omega = ?$ $\quad \beta = ?$

$s = ?$ $\quad a_t(t_1) = a_n(t_1)$

$t_1 = ?$

$$\boxed{v = v_k = a_t \cdot t} \qquad \boxed{a_n = a_{cp} = \frac{v^2}{R}} \qquad \boxed{v = \omega R} \qquad \boxed{a_t = \beta R}$$

$$\boxed{s = \theta \cdot R} \qquad \boxed{a = \sqrt{a_t^2 + a_n^2}}$$

(i) $v = a_t \cdot t$

(ii) $a_n = \frac{v^2}{R}$ $\quad a_t = 2\,\frac{m}{s^2}$ $\Rightarrow$ $a = |\vec{a}| = \sqrt{a_t^2 + a_n^2} = \sqrt{a_t^2 + \left(\frac{v^2}{R}\right)^2}$

(iii) $\omega = \frac{v}{R}$

(iv) $\beta = \frac{a_t}{R}$ szöggyorsulás

(v) $s = \bar{v} \cdot t = \frac{v}{2} t$

(vi) $a_t = a_n$

$$2 = \frac{v^2}{R} = \frac{(a_t \cdot t)^2}{R} = \frac{(2t)^2}{10} \Rightarrow 2 = \frac{4t^2}{10}$$