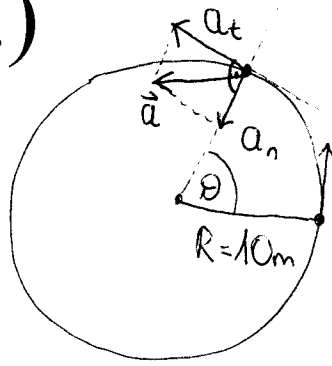


3.)



$$a_t = 2 \text{ m/s}^2$$

$$t = 10 \text{ s}$$

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

$$s = ?$$

$$v = v_k = a_t \cdot t$$

$$a_n = a_{cp} = \frac{v^2}{R}$$

$$v = \omega R$$

$$a_t = \beta R$$

$$s = \theta \cdot R$$

$$a = \sqrt{a_t^2 + a_n^2}$$

(i) $v = a_t \cdot t$

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

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

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

(v) $s = \theta \cdot R = \underbrace{\bar{\omega} \cdot t \cdot R}_{\text{vagy}} = \frac{\omega}{2} t \cdot R = \frac{\beta \cdot t}{2} t R = \frac{\beta}{2} t^2 R$
vagy