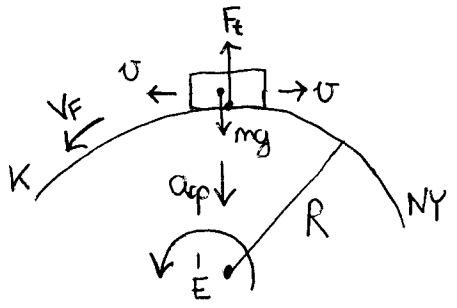
15.) $v = 72\frac{km}{h} = 20\frac{m}{s}$ $\quad m = 25t$ $\quad F_k \lessgtr F_{NY}$? $\quad |F_{NY} - F_k| = ?$



$$a_{cp} = a_n = \frac{v^2}{R} \qquad v_F = \frac{2R\pi}{T} \qquad \vec{a} = \frac{\vec{F_e}}{m}$$

$$a = \frac{(v_F \pm v)^2}{R}$$

$ma = F_e = mg - F_t$ $\qquad$ $F_t \rightarrow F_k$ vagy F_{NY}

$F_t = mg - ma$

$$\left.\begin{aligned} F_K &= mg - m\frac{(v_F + v)^2}{R} \\ F_{NY} &= mg - m\frac{(v_F - v)^2}{R} \end{aligned}\right\} \quad \underline{\underline{F_{NY} > F_k}}$$

$$F_{NY} - F_K = \frac{m}{R}\left(v_F^2 + 2v_F v + v^2 - v_F^2 + 2v_F v - v^2\right) = \ldots .$$