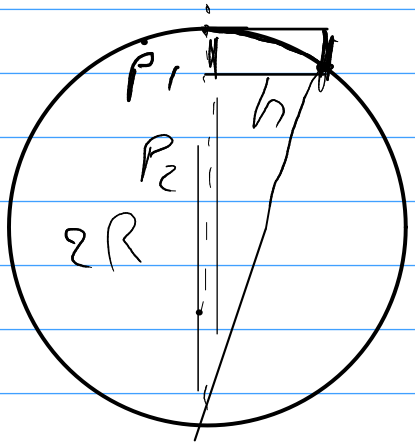
$h = v \cdot t$

v

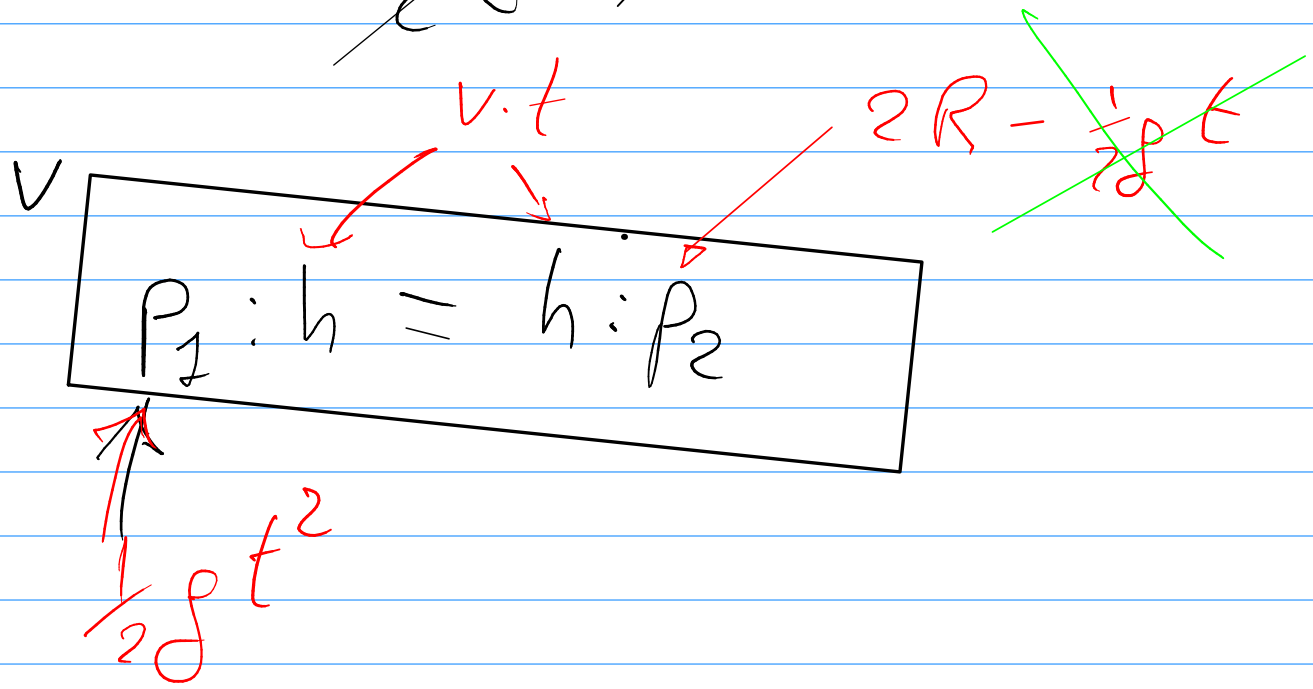
$\frac{1}{2} g t^2$



$v = \sqrt{g \cdot R}$

$\frac{1}{2} g t : h = h : (2R - \varepsilon)$

$v^2 \cdot t^2 = h^2 = \frac{1}{2} g t^2 \cdot 2R$



$$v = \sqrt{g \cdot R} \qquad \not{4}0\,\mathrm{m}$$

$$= \sqrt{10\,\mathrm{m\,s^{-2}} \cdot 6.4\,10^{3}\,\mathrm{km}}$$

$$= \sqrt{64\,10^{6}\,\mathrm{m^2\,s^{-2}}}$$

$$\approx 8000\,\mathrm{m/s}$$

$$F = \frac{GM_T m}{R^2} = \frac{GM_T \cdot m}{R^2}$$

$$= g' \cdot m$$

$h \uparrow 400\,km$

$$= \frac{GM_T m}{(R_T + h)^2}$$

$$= \frac{GM_T m}{R_T^2 \left(1 + h/R_T\right)^2}$$

$g = 9{,}8\ m/s^2$

$$a = F/m = g \frac{1}{1 + 2\frac{h}{R_T} + \left(\frac{h}{R_T}\right)^2}$$

$\uparrow$ eff $\uparrow$ cause

$$Q \simeq g \frac{1 - 2h/R_T}{\left(1 + 2h/R_T\right)\left(1 - 2h/R_T\right)}$$

$$\simeq g \frac{1 - 2h/R_T}{1 - 4h^2/R_T^2}$$

$$\simeq g\left(1 - \frac{2h}{R_T}\right) \rightarrow g\left[-12\%\right]$$

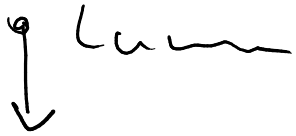
$2h = 800\,km$ $\qquad \frac{2h}{R_T} = \frac{1}{8} \simeq 12\%$

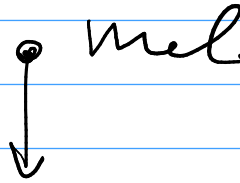
$R_T = 6400\,km$

$Q = g \times 0,88$

$\rightarrow 4,9\ m$

$\rightarrow 4,3\ m$

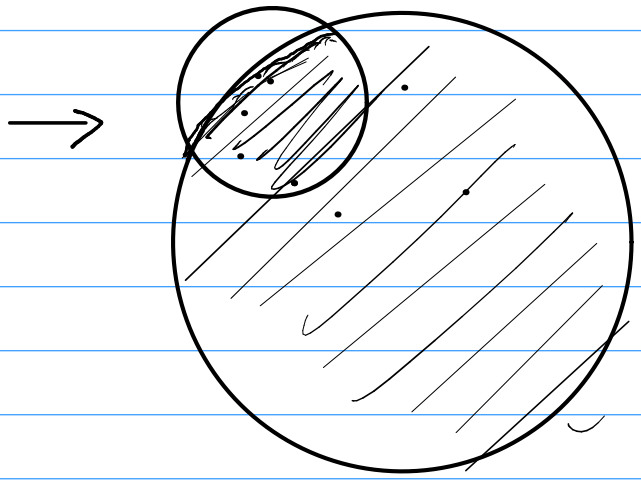




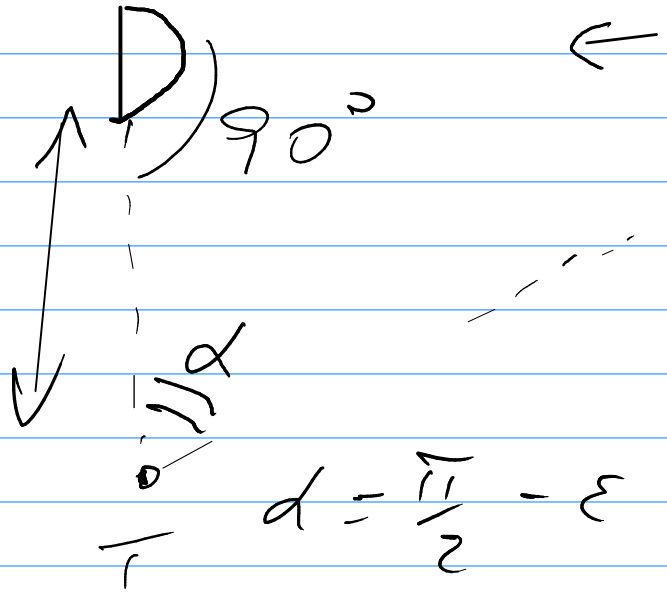
$$F \propto \frac{1}{R^2}$$

$$R_S \simeq 5 R_T$$

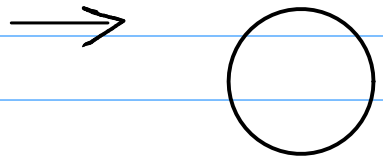
$$d_{TS} \simeq 15\, d_{TL}$$

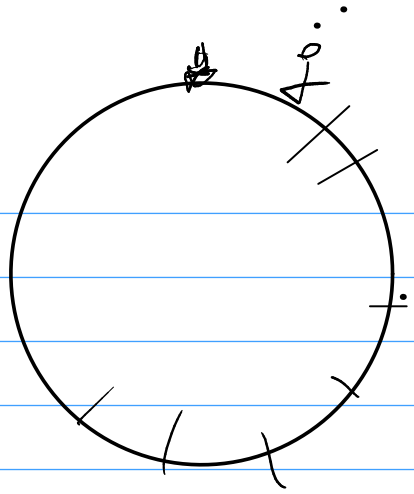


→ $\underline{\underline{d_{TL}}}$



$$d = \frac{\pi}{2} - \varepsilon$$





$g = \frac{v^2}{R} = g$

centripeta

$v = \sqrt{g \cdot R}$

$g = 9,8\ m/s^2 = 9,8\ m/s$

$\simeq 35\ km/h/s$

$\frac{F}{m} \rightarrow$ Campo $\quad g = 9,8\ N/kg$

$F_G \longleftrightarrow F_C$

$\vec{F} = \vec{E}$ $\quad g : N/kg$

e

$\vec{F} = q \cdot \vec{E}(\vec{r})$

$\vec{F} = -\frac{GMm}{R^2}\hat{r}$ $\quad M$ $\quad m$

$\vec{g} = \frac{\vec{F}(\vec{r})}{m} = -\frac{GM}{R^2}\hat{r}$

$\vec{F_G} = m \cdot \vec{g}$