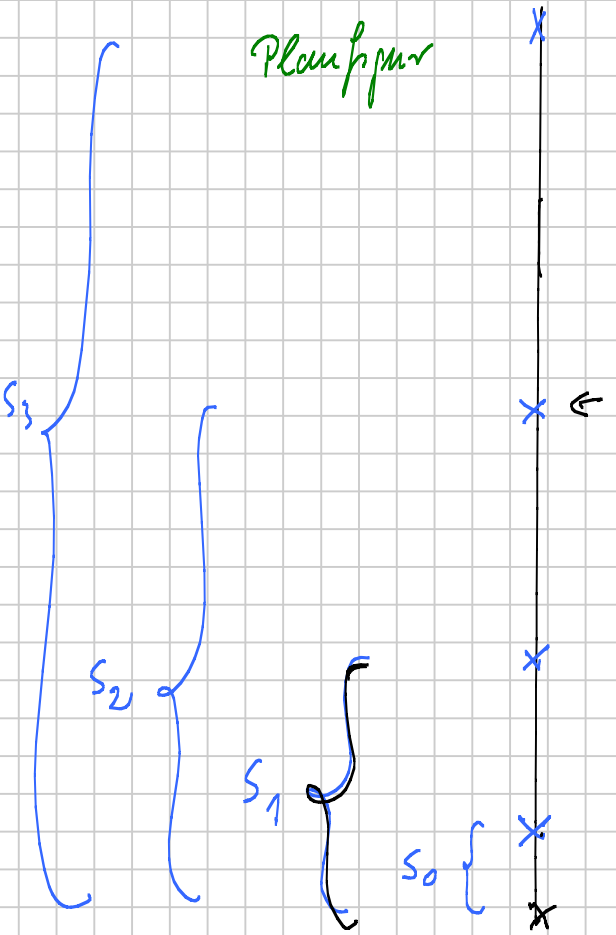
Freier Fall Fallrichtung

Notiztitel 07.05.2008



$s_0 = 50\,cm$

→ Fallzeit $s_0 = \frac{a}{2} \cdot t_0^2$

$t_0^2 = \frac{2 s_0}{a}$

$t_0^2 = \frac{1\,m}{10\,\frac{m}{s^2}}$

$t_0^2 = 0{,}1\,s^2$

$t_0 \sim 0{,}32\,s$ ⇐

$s_1 = 4 \cdot 50\,cm = 2\,m$

$s_1 = \frac{a}{2} \cdot t_1^2$

$t_1^2 = \frac{2 s_1}{a}$

$t_1^2 = \frac{2 \cdot 4 \cdot 50\,cm}{10\,\frac{m}{s^2}}$

$t_1^2 = \frac{1\,m \cdot 4}{10\,\frac{m}{s^2}}$

$t_1 = 0{,}32 \cdot 2$ ⇐

$t_1 = t_0 \cdot 2$

$s_2 = 9 \cdot 50\,cm = 4{,}5\,m$