```
y(t)= yo+Vot- 2+2
                                        Vy(t= Vo-gt
                           V_0 > 0: H_{max} = Y_0 + (\frac{V_0^2}{2g}); t_{nog} = \frac{V_0}{g}; t_{nog} = \frac{V_0}{g}; t_{nog} = \frac{V_0 + \sqrt{V_0^2 + 2y_0} g}{g}
                     Vo ≤ 0: Hmax = yo; thog=0
   1) Xo, Vo:
   2) Xo; thog: thog >0: Vo=g-thog; Hmax=yo+Vo thog- gthog thon= Vo+ \( \sqrt{Vo}^2 + 2 \frac{y_0}{g} \)
                           trog=0: Hegocrarous gaunes; 

+ tron: Mmax=yo; Vo = 2 - yo

trog=0
                                    + Итах: педостаточно даниях (+ ошибка при Итах >0)
3) X_0; then: V_0 = \frac{g \cdot t_{non}}{2} - \frac{g_0}{t_{non}}
                      Vo so: tnog=o; Kmax=yo
                      Vo > 0: trog = Vo; Hmax = Yo + Vo trog - g trog
                      Mmax < Yo - Oumoka
                       H_{max} = y_0 - \mu ego(Taxormo gamma (odpadotamo bame)
H_{max} > y_0: t_{nos} = \sqrt{\frac{2(H_{max} - y_0)}{g}}, V_0 = g \cdot t_{nos} / t_{nos} = \frac{V_0 + \int V_0^2 + 2y_0 \cdot g}{g}
4) Xo; Hmax:
                       Vo=0; trog=0: Regocratorno gamma
 5) Voitnog:
                                      + tron: 40 = gtnon; Hmax=yo
                       Voco, trog=o: hegocrarorno gannex:
                                      + tron: yo= gtnon - Vo tron; Mmax=yo
                      Vo>o; trog>o: hegocrarouro gannes:
                                     + then: yo = gtnon - Vo. thon, Hmax=yo +Vo. thoy - gtnog
                                    + Amax: yo = Amax - Vo trog + gtrog, tron = Vo + JVo2 + 290 g
                    Unare - brogne gamme oundown.

y_0 = \frac{g + n_0}{2} - V_6 + t_{non}

6) Vo; than ;
                    Vo ≤ 0: tnog = 0; Mmax=40
                    Vo>o: thog = \frac{Vo}{g}; Hmax = \frac{yo + Vo \tag - \frac{g \tag thog}{2}}{2}
```

4) V_0 ; $V_0 \le 0$: $V_0 = H_{max}$; $t_{nog} = 0$; $t_{non} = \frac{V_0 + J_0^2 + 2y_0 g}{g}$ $V_0 > 0$: $t_{nog} = \frac{V_0}{g}$; $y_0 = H_{max} - V_0$; $t_{nog} + \frac{g + nog}{2}$; $t_{non} = \frac{V_0 + J_0^2 + 2y_0 g}{g}$ 8) t_{nog} ; $t_{non} - H_{egocratoryo}$ ganger

9) t_{nog} ; H_{max} : $t_{nog} > 0$: $V_0 = g \cdot t_{nog}$; $y_0 = H_{max} + \frac{g \cdot t_{nog}}{2} - V_0 \cdot t_{nog}$; $t_{non} = \frac{V_0 + J_0^2 + 2y_0 g}{g}$ $t_{nog} = 0$: $H_{egocratoryo}$ ganger. $H_{max} = H_{og}$ $t_{nog} = 0$: $H_{egocratoryo}$ ganger. $H_{max} = H_{og}$

10) thon; Hmax: hegocrasorus gammar. (Ospasorano brue.)