

y (m)

Euler method

$g = 9.8 \text{ m/s}^2$, $B_2/m = 4.0 \times 10^{-5} \text{ m}^{-1}$, $Y_0 = 1 \times 10^4 \text{ m}$
 $a = 6.5 \times 10^{-3} \text{ K/m}$, $T_0 = 293 \text{ K}$, $\gamma = 1.4$, $v_0 = 700 \text{ m/s}$
 $\Delta t = 0.0005 \text{ s}$

- no drag
theta: 45.0 °, range: 50000.2 m
- constant air density
theta: 45.0 °, range: 21699.8 m
- isothermal model
theta: 45.0 °, range: 26610.0 m
- adiabatic model
theta: 45.0 °, range: 24570.7 m

