



A big tank is filled with two liquids of different densities. Liquid 1 has density $\rho_1 = 900\text{kg}/\text{m}^3$ while liquid 2 has density $\rho_2 = 1000\text{kg}/\text{m}^3$. The height of liquid 1 is $h_1 = 4\text{m}$, the height of liquid 2 is $h_2 = 1\text{m}$.

Near the bottom of the tank there is a very small opening from which liquid 2 is flowing out. As you know, the trajectory of the flowing liquid is a parabola.

Assuming that the opening has coordinates $x_0 = -7\text{m}$ and $y_0 = -1\text{m}$, calculate the equation of the parabola.