

## Fuel compartment of a bottle rocket

A high school student wants to design a bottle rocket that produces $50 \mathrm{~L} \mathrm{of}_{\mathrm{CO}}^{3}$. Given that the densities of $\mathrm{NaHCO}_{3}$ and $\mathrm{CH}_{3} \mathrm{CH}_{2} \mathrm{OOH}$ are 2.2 and $1.05 \mathrm{gm} / \mathrm{cm}^{3}$, what volume is needed for the fuel compartment?

