Task:
At 32 grams, which compounds has the largest volume at STP

Answer:
An Ideal gas law:
$P \cdot V = n \cdot R \cdot T$
P – pressure
V – volume
R – universal gas constant
T – Kelvin temperature
n- number of moles
At STP (standard temperature and pressure, T =273 K, p = 1 atm) temperature and pressure remains constant.
The volume depends on the number of moles of compound.
The number of moles is:
n(mol) = m(g) / MW(g/mol)

That's why the compound with the least molar weight has the largest number of moles and the largest volume.