

# Number Density ACT

- Two gas cylinders are filled such that they have the same mass of gas (in the same volume). One cylinder is filled with Helium, the other with Oxygen. Which container has the larger number density?

A) Helium

B) Oxygen

C) Same

Helium atom is "lighter" than Oxygen molecule. If you have the same mass, you must have many more Helium molecules than Oxygen. So the Helium number density is larger.