

Problem Solving and Estimation
Concept Questions

Question 1 What is your best estimate of the volume of one breath?

- 1) between $\frac{1}{10}$ and 1 liter
- 2) between 1 and 10 liters
- 3) between 10 and 100 liters
- 4) between 100 and 1000 liters

Question 2 What is your best estimate for the volume of the earth's atmosphere?

- 1) between 10^1 and 10^5 cubic meters
- 2) between 10^5 and 10^{10} cubic meters
- 3) between 10^{10} and 10^{15} cubic meters
- 4) between 10^{15} and 10^{20} cubic meters
- 5) between 10^{20} and 10^{25} cubic meters
- 6) between 10^{25} and 10^{30} cubic meters

Question 3 What is your best estimate for the number of molecules in the earth's atmosphere?

1. Less than 10^1 molecules.
2. Between 10^{10} and 10^{20} molecules.
3. Between 10^{20} and 10^{30} molecules.
4. Between 10^{30} and 10^{40} molecules.
5. Between 10^{40} and 10^{50} molecules.
6. Between 10^{50} and 10^{60} molecules.
7. Between 10^{60} and 10^{70} molecules.
8. Between 10^{70} and 10^{80} molecules.
9. More than 10^{80} molecules.

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8.01SC Physics I: Classical Mechanics

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