Question title: Mass and Volume
Conservation of Mass and Conservation of Volume differ substantially when a fluid is:

- 1. compressible (density changes a lot).
- 2. adiabatic (conserves energy).
- 3. isentropic (conserves entropy).
- 4. granular.
- 5. viscous.

Question title: Budgets
A budget is an accounting of what goes in and what goes out. The difference leads to a change in the content of whatever is doing the going in and out.

- True  False

Question title: Evaporation Precipitation
Evaporation, precipitation and runoff affect only the total water content ("freshwater") and not the salt.

- True  False

Question title: What to Conserve
Emery et al. chp 5 discusses primarily conservation of

- 1. Heat Energy
- 2. Freshwater
- 3. Oxygen
- 4. Biomass
- 5. Entropy

Question title: Material Lagrangian
The Lagrangian, or Material, approach budgets for changes to a specified moving quantity of material.

- True  False

Question title: Eulerian
The Eulerian, or Control Volume, approach budgets for changes to a specified moving quantity of material.

- True  False
Question title: Conservation by Eulerian and Lagrangian methods
Eulerian (control volume) and Lagrangian (control mass) methods are equally valid, but differ in their application, equations, and interpretation.

☐ True ☐ False

Question title: The Equation of State
The equation of state is the same for air and water.

☐ True ☐ False

Question title: Nondimensional Equations
Every equation of physical importance should be independent of the scientist's choice of units.

☐ True ☐ False