

Section 13.3 Liquids and Solids

In your textbook, read about liquids and solids.

In the space at the left, write *true* if the statement is true; if the statement is false, change the italicized word or phrase to make it true.

- _____ 1. The constant *motion* of the particles in a liquid causes the liquid to take the shape of its container.
- _____ 2. At room temperature and one atmosphere of air pressure, the density of a liquid is much *greater* than that of its vapor.
- _____ 3. Liquids are not easily compressed because their particles are *loosely* packed.
- _____ 4. A liquid is less fluid than a gas because *intramolecular* attractions interfere with the ability of particles to flow past one another.
- _____ 5. Liquids that have stronger intermolecular forces have *higher* viscosities than do liquids with weaker intermolecular forces.
- _____ 6. The viscosity of a liquid *increases* with temperature because the increased average kinetic energy of the particles makes it easier for the particles to flow.
- _____ 7. Liquids that can form hydrogen bonds generally have a *high* surface tension.
- _____ 8. A liquid that rises in a narrow glass tube shows that the adhesive forces between the particles of the liquid and glass are *greater* than the cohesive forces between the particles of the liquid.
- _____ 9. Solids have a definite shape and volume because the motion of their particles is limited to *vibrations* around fixed locations.
- _____ 10. Most solids are *less* dense than liquids because the particles in a solid are more closely packed than those in a liquid.
- _____ 11. Rubber is a *crystalline* solid because its particles are not arranged in a regular, repeating pattern.