

**Self-test: Chapter 3**

**Successful students test themselves before major tests and exams. You don't know what you don't know until you test yourself.**

1. Start by answering all the questions you can without your notes or the book and circle these problem numbers. This is the material that you already understand pretty well.
2. For each question that you did not circle, write down the chapter and section number in the book (e.g. 4.1, 4.4) that covers this information.
3. Start by reading the entire section that you wrote down most often. Your goal is not to word search or to look up answers, but to read for understanding.
4. If you still do not understand the concept after careful reading, discuss the concept with a peer or the teacher. Talking about it helps you understand it better.

1. The particles of a \_\_\_\_\_ are far apart and move independently of one another.
2. A liquid's resistance to flow is called \_\_\_\_\_.
3. The shape and volume of matter in the \_\_\_\_\_ state do not change.

*Use the terms from the following list to complete the sentences below.*

Charles's law	condensation
endothermic	liquid
evaporation	gas
sublimation	viscosity
Boyle's law	

4. The drops of water that appear on the outside of a glass of cold juice on a warm day are an example of \_\_\_\_\_.
5. The way a balloon decreases in volume when the temperature is decreased illustrates \_\_\_\_\_.
6. The change of state from a liquid to a gas is \_\_\_\_\_.
7. Sublimation is a change of state from a solid directly to a(n) \_\_\_\_\_.
8. In a(n) \_\_\_\_\_ change, energy is added to a substance.
9. One property of liquids is \_\_\_\_\_.

Use the terms from the following list to complete the sentences below.

Charles's law	solid
liquid	volume
surface tension	gas

- The volume of a gas is related to its temperature. Pressure must be constant. This is \_\_\_\_\_.
- The amount of space that an object takes up is its \_\_\_\_\_.
- The particles of a crystalline \_\_\_\_\_ have a three-dimensional pattern.
- A state of matter with fixed volume, but not a fixed shape, is a \_\_\_\_\_.
- Gasoline has a low \_\_\_\_\_ and forms flat drops.
- The particles of a \_\_\_\_\_ are far apart.

## Matching

Match each item with the correct statement below.

a. change of state	f. sublimation
b. melting	g. freezing
c. evaporation	h. vapor pressure
d. boiling	i. exothermic
e. condensation	j. endothermic

- \_\_\_\_\_ 16. a change in which energy is gained by a substance as it changes state
- \_\_\_\_\_ 17. the change of state from a solid to a liquid
- \_\_\_\_\_ 18. the change of a substance from one physical form to another
- \_\_\_\_\_ 19. the pressure inside the bubbles of a boiling liquid
- \_\_\_\_\_ 20. the change of state from a solid directly to a gas
- \_\_\_\_\_ 21. the change of state from a liquid to a gas
- \_\_\_\_\_ 22. the change of a liquid to a vapor throughout the liquid
- \_\_\_\_\_ 23. a change in which energy is removed from the substance as it changes state
- \_\_\_\_\_ 24. the change of state from a gas to a liquid
- \_\_\_\_\_ 25. the change of state from a liquid to a solid