

Assessment

States of Matter**Section Quiz: Solids**

In the space provided, write the letter of the term or phrase that best completes each statement or answers each question.

- _____ 1. According to the kinetic-molecular theory, particles in solids
- vibrate around fixed points.
 - are loosely packed.
 - move rapidly around each other.
 - are arranged randomly.
- _____ 2. The three states of matter of a particular substance, in order of the strength of intermolecular forces from least to greatest, are
- solid, liquid, gas
 - liquid, solid, gas
 - gas, liquid, solid
 - gas, solid, liquid
- _____ 3. Which is an example of a noncrystalline solid?
- emerald
 - quartz
 - ice
 - glass
- _____ 4. Which of the following is *not* a physical property of crystalline solids?
- definite shape
 - definite melting point
 - low rate of diffusion
 - high compressibility
- _____ 5. Amorphous solids have no definite melting point because
- their particles are constantly changing positions.
 - their particles are arranged randomly.
 - their particles are tightly packed.
 - their particles move around each other.

Section Quiz, *continued*

- _____ 6. How many different types of crystal symmetry are there?
- 3
 - 5
 - 7
 - 9
- _____ 7. The smallest portion of a crystal lattice that shows the three-dimensional pattern of the entire lattice is called the
- crystal structure.
 - molecular structure.
 - formula cell.
 - unit cell.
- _____ 8. Which of the following is *not* a type of crystal?
- metallic crystal
 - lattice crystal
 - covalent network crystal
 - ionic crystal
- _____ 9. Which is an example of a polar covalent molecular crystal?
- H₂O
 - H₂
 - NaCl
 - CCl₄
- _____ 10. Which crystalline solids generally have the highest melting and boiling points?
- covalent network crystals
 - nonpolar covalent molecular crystals
 - ionic crystals
 - polar covalent molecular crystals