Physical Properties of Matter Questions

1. What is an elastic collision?

a collision in which kinetic energy is conserved.

- 2. How does the kinetic energy of particles vary as a function of temperature? as temperature increases, kinetic energy of the particles increases
- 3. What is an amorphous solid? Under what condition is such a solid likely to form?

a solid without a definite, repeating crystal structure it forms when the substance is cooled quickly

- List the types of crystalline solids that are usually good conductors of heat and electricity. *metallic solids*
- 5. How does the strength of a liquid's intermolecular forces affect its viscosity?

the stronger the intermolecular forces, the higher the viscosity

6. How does sublimation differ from deposition?

sublimation – changes from a solid to a gas without passing through the liquid phase, requires energy deposition – changes from a gas to a solid without passing through the liquid phase, releases energy

7. Define melting point.

the temperature at which the forces holding the crystal lattice together are broken and it becomes a liquid