

Explain the kinetic-molecular theory of matter for solids, liquids and gases. Make sure to indicate the differences between each phase of matter.

Complete #60 on page 439. Write the appropriate formula and show all work.

Define STP in two different units of temperature and three different units of temperature.

Complete #51 on page 408 of your text.

Write the formulas for percent yield and percent error.

Write the formula for molar mass

Draw a heating curve for a pure substance. Include the correct axes titles, and label all three phases. Also label the phase changes, the melting/freezing point and the boiling/condensation point.

Complete #55 on page 439 in the text. Write out the appropriate formula and show all work.

Explain the relationship between pressure and volume. Do the same for the relationship between temperature and volume.

Make a table listing the differences between a real gas and an ideal gas.

Complete #57 on page 439 in the text. Write out the appropriate formula and show all work. Answer the question in atmospheres.

Describe what viscosity is and give examples of both high and low viscosity liquids.

Use a diagram to describe what surface tension is and how it works.

Four gas laws are derived from the fifth one, the Ideal Gas Law. Name these laws, write their formulas, and indicate which variables are held constant in each.

Make a table of five types of solids. Include their characteristics and examples of each. Indicate which ones are molecular and which are non-molecular.

Complete #7 on page 419 of the text. Write the appropriate formula and show all work.

Write Dalton's Law and Graham's Law of effusion.

Complete #12 on page 423 of the text. Write the appropriate formula and show all work.

Complete #10 on page 421 of the text. Write the appropriate formula and show all work.

List the 3 values for the Gas Law Constant with their correct units.

Draw a phase change diagram. Include the correct axes, the location of each phase of matter, the critical point, and the triple point. Use arrows to indicate each of the six phase changes.

Use a diagram to explain vapor pressure and vapor pressure equilibrium.

Complete #32 on page 434 of the text. Write the appropriate formula and show all work.

Complete #72 on page 440 of the text. Write the appropriate formula and show your work.

Complete practice problem #1 in page 387 in your text. Show all work and units.

List the five important properties of water.

Write the formulas for converting between Celsius and Kelvin.