Unit 2 Section 4
Study Guide

Directions: Answer the following questions.

Reviewing Objectives Part 1:

1. Use mathematical or computational representations to predict the motion of orbiting objects in the solar system. (pages: 692-694)

Reviewing Major Concepts Part 2: ***Textbook Chapter 27 sections 2***

1. Compare Ptolemy's and Copernicus's models of the universe.

2. Identify the role that Galileo played in developing the heliocentric theory.

3. Describe the shape of planetary orbits.

4. Explain the law of equal areas.

5. Summarize Kepler's third law of planetary orbits.

6. Describe how Newton explained Kepler's laws by combining the effects of two forces.

CRITICAL THINKING

7. Applying Ideas. A comet's orbit is a highly elongated ellipse. So, why does a comet spend so little time in the inner solar system?

8. Making Comparisons. How did Kepler's explanation of the orbits of planets differ from Newton's explanation?

CONCEPT MAPPING

9. Use the following terms to create a concept map:retrograde motion, geocentric, heliocentric, ellipse,foci, gravity, and inertia.