

CHAPTER REVIEW

Chapter 13

Motion Near Earth

I. Vocabulary Review

Match each item in Column I with the most appropriate item in Column II. Write the letter for that item in the blank at the left.

- | Column I | Column II |
|---|-----------------------------|
| _____ 1. the time it takes a pendulum bob to swing over and back once | a. terminal velocity |
| _____ 2. the distance a pendulum bob travels from the starting point to the bottom of its swing | b. period |
| _____ 3. the movement of an object that is launched horizontally and falls back to Earth in a curved path | c. amplitude |
| _____ 4. the motion of an object under the sole influence of gravitational force | d. free-fall |
| _____ 5. the result of air resistance balancing the force of gravity | e. projectile motion |

II. Concept Review

If the underscored word or phrase makes the sentence true, write "TRUE" in the space provided. If the underscored word or phrase makes the sentence false, write the correct term or phrase in the space provided.

- _____ 6. If there are no differences in air resistance, all objects fall to the ground from the same height in the same amount of time.
- _____ 7. Compared with an object of smaller mass, an object of larger mass has greater acceleration due to gravity.
- _____ 8. A brick on Earth falls at the same speed it would fall on the moon.
- _____ 9. The vertical and horizontal components of the velocity of a projectile are independent.
- _____ 10. In an orbiting spacecraft, one effect of gravity is weightlessness.
- _____ 11. Acceleration due to gravity is constant as you go farther away from Earth.
- _____ 12. The period of a pendulum is measured in cycles per second.
- _____ 13. The shorter a pendulum, the greater its period.
- _____ 14. Compared with the time it takes Earth to rotate once on its axis, the time it takes a stationary satellite to revolve once around the Earth is shorter.

Chapter Review 13 (continued)

III. Skills/Process Review

Answer the following questions in complete sentences.

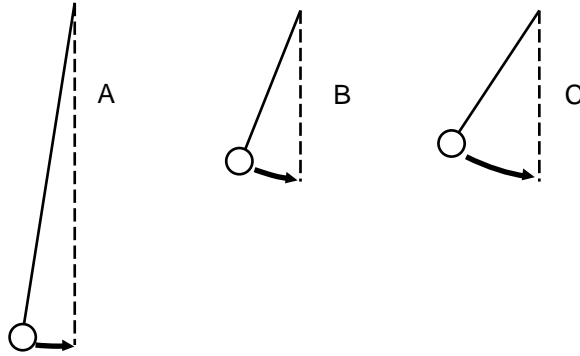


FIGURE 1

- 15. Which pendulum in Figure 1 has the greatest period? _____

- 16. Predict the impact on frequency if a bob with greater mass is added to pendulum A in Figure 1.

- 17. Which variables change with each pendulum shown in Figure 1? _____

- 18. Which two pendulums in Figure 1 have the same period? _____

- 19. If the pendulums in Figure 1 were in metronomes, which would tick the slowest? _____

IV. EYV Review

20. Science and Society: Weather Satellites Why are satellites helpful in predicting the weather?
