Name: _____   _____/ 10
Chapter 6.2 Homework
Conceptual Physics   Parent Signature: _____

Reviewing Concepts

12. State whether each object is rotating or revolving. (1)

      a. satellite orbiting Earth

      b. a toy train moving on a circular track

      c. a fan blade

13. Which of the following units is appropriate for angular speed: rotations per second, meters per second, revolutions per minute? (0.5)

14. How many degrees are in one revolution or rotation? (0.5)

15. Two ants are sitting on a spinning record (see figure on page 160). One sits near the center and the other near the edge. (1)

      a. How do their angular speeds compare?

      b. How do their linear speeds compare?

16. Rolling is a combination of _____ motion and _____ motion. (1)

17. How far does the center of a wheel move in a line as the wheel rolls through one rotation? (1)

Solving Problems

8. Find the angular speed of a Ferris wheel that makes 12 rotations during a 3-min ride. Express your answer in rotations per minute. (1)

9. A wheel makes 10 rotations in 5 s. (1.5)

      a. Find its angular speed in rotations per second.

      b. How many degrees does it turn during the 5 s?

      c. Find its angular speed in degrees per second.

10. You are sitting on a merry-go-round at a distance of 2 m from its center. It spins 15 times in 3 min. (2.5)

      a. What distance do you move as you make one revolution?

      b. What is your angular speed in RPM?

      c. What is your angular speed in degrees per minute?

      d. What is your linear speed in meters per minute?

      e. What is your linear speed in meters per second?