

# RADICALS AND CONNECTIONS TO GEOMETRY

► *How are passengers kept in place on an amusement park ride that spins?*





## CHAPTER

# 12

### APPLICATION: Spinning Rides

*Some amusement park rides spin so fast that the riders “stick” to the walls of the ride. The force exerted by the wall on the rider is called **centripetal force**.*

To design an amusement park ride, engineers must figure out the dimensions of the ride and how many times per minute it will spin. You’ll learn to calculate the force generated by such a ride in Chapter 12.

### Think & Discuss

- Based on the numbers in the table, is “revolutions per minute” a function of “height”?

Ride name	Height (feet)	Revolutions per minute
Football Ride	34.4	15
Chaos™	36	12
Centrox	44.3	17.5
Galactica	44.3	17

- You are designing a spinning ride that is 40 feet high. Use the information in the table to decide on a reasonable range for how many revolutions per minute the ride would make.

### Learn More About It

You will calculate the centripetal force exerted on a rider in Exercises 66 and 67 on p. 726.



**APPLICATION LINK** Visit [www.mcdougallittell.com](http://www.mcdougallittell.com) for more information about amusement park rides.

