**Exercise 11.5**

1. A class hierarchy is the formation of classes within each other and then the classes with the class object at the root. An example of this is having a sub class and then an object within the subclass inheriting characteristics from other, higher up classes.
2. To inherit characteristic from another class the term used is “extends” followed by the other class name.
3. The keyword super is used to activate the desired constructor in an outside class, and the parameter list used with super determines which constructor in the outside class is called.
4. The keyword super differs when used with methods other than constructors in two ways. First, super can appear anywhere within a method. Second, it follows a different syntax (shown here): super.<method name> (<parameter list>);
5. The role of the visibility modifier protected is used so methods in a class is only viewable from a class’s descendents, restricting use from classes higher in the hierarchy.
6. Shape s is not of type wheel before being sent to setSpokes. To fix this, you must cast s to class Wheel then send s as a message to set spokes.