Peter Kirkpatrick

April 28, 2009

CS HMWK Ch. 9

1.a. mySphere.displayStatistics() will invoke the version of area() located in the Sphere class because mySphere is an instance of the Sphere class.

myBall.displayStatistics() will invoke the version of area() located in the Ball class because myBall is an instance of the Ball class.

b. The first call to s1.displayStatistics() will use the version of area() located within the Sphere class.

After the second call to s1.displayStatistics(), the area() located within the Ball class will be invoked

because s1now references an instance of the Ball class, as does b1.

When b1.displayStatistics() is called it too uses the area() method found in the Ball class because b1

is an instance of the Ball class and that is the first class checked for a given method.

3.a. The implementation of speed can invoke all of the previous methods mentioned because they are all public and because MotorizedLandVehicle is a subclass of LandVehicle.

b. The implementation of engineCapacity can once again invoke all of the methods mentioned because they are all public and because MotorizedLandVehicle is a subclass of LandVehicle.

4.a. Both objects can correctly invoke the method wheelCount().

b. motorVeh is the only object that can correctly invoke the method fuelType().