10. Inheritance :: Calling an Overridden Superclass Method

Sometimes the behavior of a superclass-inherited method is exactly what the subclass requires, but the subclass also has to perform some additional operations.

Example: suppose at a university all students—undergraduate and graduate—are assessed tuition using the same formula: *tuition* = \$675 × *credit hours*. However, graduate students in certain professional programs (e.g., dentistry, pharmacy, medicine) are assessed an addition professional program fee of \$3,500.

We can write the *calcTuition*() method in *Student* that calculates a student's tuition by multiplying \$675 by the number of credit hours. We need to call that method in the *GraduateStudent* class to calculate the tuition and then add the professional program fee when necessary.

```
public class Student {
  public double calcTuition() {
    return 675 * creditHours();
  }
}
```

10. Inheritance :: Calling an Overridden Superclass Method (continued)

```
public class GraduateStudent extends Student {
  // calcTuition() is overridden and needs to call the superclass (Student)
  // calcTuition() method. Since these two methods have the same name, how do
  // we specify to the compiler that we are calling calcTuition() in Student?
  // By using the super reserved word.
  public double calcTuition() {
    double tuition = super.calcTuition();  // Calls Student.calcTuition();
    if (mProfessionalProgram == true) {
      tuition += 3500;
    }
    return tuition;
  }
}
```