

## Discussion Questions for “Defining Methods – Part II”

1. What is the difference between an instance method and a class method? Describe a situation where you might use an instance method and a situation where you might use a class method.
2. Describe a situation where you might want to code two different methods with the same name, but different parameter lists.
3. Is it possible for a method with a short parameter list to invoke a method of the same name with a longer parameter list? Might that be a useful thing to do?
4. The lecture mentioned, but did not show a “getWidth” method in the Rectangle class. How would you write the code for the “getWidth” method? (Hint: it all fits on one line.)
5. It is fairly typical for object-oriented code to have “getter” and “setter” methods for each field; the “getter” methods retrieve the value of the field, and the “setter” methods update the value of the field. When this is done, the fields are often declared as private. What are the advantages of this methodology? What are the disadvantages?
6. What are the pros and cons of immutable vs. mutable classes?