

Critical Thinking Chapter 7

1. Because they cannot be accessed directly outside the class, the members are encapsulated.

2. A constructor must have the same name as the class.

3.

private: The member can only be accessed within the same class.

public: The member can be accessed from anywhere in the program.

4. It is invalid if radius is a private member of the Circle class, because private members cannot be accessed directly outside the class.

5.

a) The name of the class is Roo.

b) The name of the data member is x.

c) The accessor method is getX().

d) The modifier method is setX().

e) The helper method is factor().

f) The name of the constructor is Roo.

g) There are four methods: set, get, calculate, and factor.

6. A class is like a template and an object is created from that template.

9.

a) The constant is z.

b) The variables are y and x.

c) The instance member is y, because it is not static.

d) The class members are x and z, because they are static.

11.

Overriding occurs when a subclass has a new version of a method that already exists in the superclass with the same signature.

Overloading occurs when multiple methods in the same class have the same name but have different parameters.