HW 8

1. A class is code that specifies the attributes and member functions that a particular type of object may have. Each object that is created from a class is called an instance of the class.
2. The person struct by default can be changed as one wishes, while person class by default is private, in which the members cannot be accessed by programming statements outside the class.
3. Private
4. 1. getRadius();
   2. Circle
5. A class is analogous to a blueprint.
6. Mutator functions are settors that set the value of a variable. Accessor functions are gettors that get the value of a variable.
7. Yes. Making data private protects critical data to be modified by functions outside the class.
8. Because statement “#include <iostream>” is not automatically included, which cin and cout are rely on.
9. When a class will contain one or more member functions that are necessary for internal processing, but should not be called by code outside the class.
10. A constructor accepts arguments into its parameter when an object is created. A destructor is a member function that is automatically called when an object is destroyed to free up memory.
11. A default constructor is a constructor that takes no arguments. There can only be one default constructor.
12. It is possible to have more than one constructor, but there can only be one destructor.
13. Yes. When the Rectangle object is created by the new operator, its default constructor is automatically executed.
14. The argument is passed by

ClassName tag [ SIZE ] = { ClassName(member1,member2)};

1. The responsibilities of the class are things that the class is responsible for knowing, the attributes, and the actions that the class is responsible for doing, the member functions.
2. Identify by including all Physical objects, any role played by a person, the results of an event, and recordkeeping items.
3. The two common programming methods in practice today are Procedural and object-oriented.
4. Procedural programming is centered around functions or procedures.
5. Object-Oriented programming is centered around objects.
6. Encapsulation is an object’s ability to contain and manipulate its own data.
7. In C++, the class is the construct primarily used to create objects.
8. A class is very similar to a(n) structure.
9. A(n) access specifier is a key word inside a class declaration that establishes a member’s accessibility.
10. The default access specification of class members is private.
11. The default access specification of a struct in C++ is public.
12. Defining a class object is often called the instantiation of a class.
13. Members of a class object may be accessed through a pointer to the object by using the structure pointer operator (->).
14. If you were writing the declaration of a class named Canine, what would you name the file it was stored in? Canine.h
15. If you were writing the external definitions of the Canine class’s member functions,

you would save them in a file named Canine.cpp

1. When a member function’s body is written inside a class declaration, the function is inline.
2. A(n) constructor is automatically called when an object is created.
3. A(n) constructor is a member function with the same name as the class.
4. Constructors are useful for performing initialization or setup routines in a class object.
5. Constructors cannot have a(n) return type.
6. A(n) default constructor is one that requires no arguments.
7. A(n) destructor is a member function that is automatically called when an object is destroyed.
8. A destructor has the same name as the class, but is preceded by a(n) tilde (~) character.
9. Like constructors, destructors cannot have a(n) return type.
10. A constructor whose arguments all have default values is a(n) default constructor.
11. A class may have more than one constructor, as long as each has a different parameter list.
12. A class may only have one default constructor and one destructor.
13. A(n) initialization may be used to pass arguments to the constructors of elements in an

object array.

1. F
2. T
3. F
4. T
5. F
6. F
7. T
8. T
9. F
10. F
11. T
12. F
13. T
14. F
15. T
16. T
17. F
18. T
19. T
20. F
21. F
22. T