# Exercises

1. Suppose your program contains the following class definition (along with definitions of the member functions):

class YourClass

{

public:

YourClass(int new\_info, char more\_new\_info);

YourClass();

void do\_stuff();

private:

int information;

char more\_information;

};

Which of the following are legal?

YourClass an\_object(42, 'A');

YourClass another\_object;

YourClass yet\_another\_object();

an\_object = YourClass(99, 'B');

an\_object = YourClass();

an\_object = YourClass;

1. True or False: You must declare all private members of a class before the public members.
2. Assume that RetailItem is the name of a class, and the class has a void member function named setPrice which accepts a double argument. Which of the following shows the correct use of the scope resolution operator in the member function definition?

A) RetailItem::void setPrice(double p)

B) void RetailItem::setPrice(double p)

1. An object’s private member variables are accessed from outside the object by

A) public member functions

B) any function

C) the dot operator

D) the scope resolution operator

1. Assume that RetailItem is the name of a class, and the class has a void member function named setPrice which accepts a double argument. If soap is an instance of the RetailItem class, which of the following statements properly uses the soap object to call the setPrice member function?

A) RetailItem::setPrice(1.49);

B) soap::setPrice(1.49);

C) soap.setPrice(1.49);

D) soap:setPrice(1.49);

1. Why would you declare a class’s member variables private?
2. When a classes member variables are declared private, how does code outside the class store values in, or retrieve values from, the member variables?
3. What is a class specification file? What is a class implementation file?
4. What is the purpose of an include guard?
5. Assume the following class components exist in a program:

BasePay class declaration

BasePay member function definitions

Overtime class declaration

Overtime member function definitions

In what files would you store each of these components?

1. What is an inline member function?
2. Briefly describe the purpose of a constructor.
3. Briefly describe the purpose of a destructor.
4. A member function that is never declared with a return data type, but that may have arguments is

A) The constructor

B) The destructor

C) Both the constructor and the destructor

D) Neither the constructor nor the destructor

1. A member function that is never declared with a return data type and can never have arguments is

A) The constructor

B) The destructor

C) Both the constructor and the destructor

D) Neither the constructor nor the destructor

1. Destructor function names always start with

A) A number

B) Tilde character (~)

C) A data type name

D) None of the above

1. A constructor that requires no arguments is called

A) A default constructor

B) An overloaded constructor

C) A null constructor

D) None of the above

# Create a Class

1. Complete the following code skeleton to declare a class named Date. The class should contain variables and functions to store and retrieve a date in the form 4/2/2012.

class Date

{

private:

public:

}