**7.2.3**

1) In a single statement, type a variable declaration that creates a reference variable named runnerJoe and creates a new object of class type RunnerInfo.

CheckShow answer:

Answer:

RunnerInfo runnerJoe = new RunnerInfo();

2)

Type a statement that creates an object firstRunner, followed by a statement that creates an object secondRunner, both of class type RunnerInfo.

Answer:

RunnerInfo firstRunner =new RunnerInfo();

RunnerInfo secondRunner = new RunnerInfo();

3)

Object runner1 is of type RunnerInfo. Type a statement that sets runner1's time to 100.

Answer: runner1.setTime(100);

4)

If runner1's time was set to 1600, and runner1's distance to 2.0, what do you expect runner1.getSpeedMph() will return? Type answer as #.#

Answer: 4.5

**7.4.1**

1)

Type the first line of a default constructor for the class named BoardMeasurement, ending with {.

Answer: public BoardMeasurement(){

2)

Type three statements within the default constructor that assign 0.0 to the fields boardLength, boardWidth, and boardThickness, in that order.

Answer: boardLength = 0.0;

boardWidth= 0.0;

boardThickness = 0.0;

**7.7.2**

1)

Declare a reference variable named flightPlan that can refer to an object of type FlightInfo. Do not create a new object.

Answer: FlightInfo flightPlan;

2)

Write a statement that creates an object of FlightInfo and assigns the new object to the reference variable flightPlan.

Answer: flightPlan = new FlightInfo();

**7.7.4**

1)

Variables timeRoute1 and timeRoute2 both refer to valid objects.

Answer: True

2)

Variables timeRoute1 and bestRoute refer to the same object.

Answer: True

**Assessment Questions**

* 1)  How can you tell a method is a constructor?
  + - 1. A: You can tell that a method is a constructor by the method only having the word ‘public’ meaning that it can be used anywhere.
* 2)  Would public void cheese() be considered a constructor?
  + 1. A: No, it would not because a constructor would need to both initialize and return information where the ‘void’ would not be returning information explicitly.
* 3)  Does it make sense to have private or void accessor method?
  1. A: It would not make sense to have a private or void method because since other objects need to have access to these methods, it would make things impossible to get this information.
* 4)  Would public void setName() be a good mutator declaration?
  1. A: No because to be a mutator the call has to be able to change whatever variable or method it is being used in. By setting a mutator as a method, it would not change any of the information due to the method just being another constructor.
* 5)  How can you tell the difference between instance and class variables?
  1. A: Instance is what is happening inside a specific class whereas a class variable will be able to be used by other classes by bypassing accessor’s. Which would be fine but with some possible side-effects.
* 6)  Can we write name = name; and what would it mean?
  1. A: We can rewrite it as this.name = name; and it would mean to initialize the variable from the class that it is in rather than have it initialize the variable from another class.
* 7)  How can you tell which version of the constructor is being called?
  1. A: It can be seen which constructor is being called based on how the calls are being written. It can be seen which constructor has parameters and which don’t have parameters.
* 8)  What does the . operator do for objects?
  1. A: It sets up the variable to receive a input/ a new value assigned to it.
* 9)  Can you use a loop to implement calcSubTotal?
  1. A: You could since we want to make sure to that every cheese’s subtotal is calculated, we want to make sure that it is iterated 3 times.
* 10)  Can you tell when and where we do the recursion in run()?
  1. A: We do a recursion of run after redo has been initialized to value 1. After this, the entire run() method is done again.
* 11)  What does this refer to?
* 12)  What should be the value of numCheese when RunShop terminates (i.e., the output of the println statement)?

A: The Total should be 2

13) Give the code to implement public void setName(String name) { ... }.

**public** **void** setName(String newName) { // Mutator

name = newName;

* + - 1. }