Programming Assignment 6-2

In the code below, `Middle` is an inner class of `Top`, and `Bottom` is an inner class of `Middle`. `Top` has a method `readBottom`, which should return the value in the instance variable of `Bottom`. `Middle` has a method `addTopAndBottom` that returns the sum of the instance variable in the `Top` class and the instance variable in the `Bottom` class. Finally, `Bottom` has a method `multiplyAllThree` that returns the product of all the instance variables in all of the classes.

The `main` method attempts to access these methods and output results. Implement the methods so that the `main` method produces the correct output. Perform all initialization of the inner classes inside the body of the default constructor for Top (you will need to insert this constructor). Source code is available in the directory for this lab.

```
public class Top {
      int t = 1;
      Middle mid;
      Middle.Bottom midbot;
      //returns the value in the instance vble of Bottom
      int readBottom() {
            //implement
            return 0;
      }
      class Middle {
            int m = 2;
            //returns sum of instance vble in Top and
            //instance vble in Bottom
            int addTopAndBottom() {
                  //implement
                  return 0;
            }
            class Bottom {
                  int b = 3;
                  //returns the product of the instance vbles
                  //in all three classes
                  int multiplyAllThree() {
                        //implement
                        return 0;
                  }
            }
      }
      public static void main(String[] args){
            Top top = new Top();
            System.out.println(top.readBottom());
            System.out.println(top.mid.addTopAndBottom());
            System.out.println(top.midbot.multiplyAllThree());
      }

}
```