1. (2 pts) If an applet needs to perform a loop, then we should create a separate running line of execution by implementing the ________________ interface which contains the method ________________ that defines what should happen in the line of execution.

2. (2 pts) The Calendar class is an ________________ class which means that we cannot create an instance of it with a constructor, instead we use the method ________________ in order to get a reference to a Calendar object.

3. (2 pts) Suppose we have the header **public class MyClass extends JApplet implements Runnable**. Given what you know about the class structure in Java, name at least 4 "is a" relationships that exist when instances of MyClass are created.

4. (2 pts) Suppose we have the following methods in a class definition called MyClass. Assume MyClass defines an instance variable called number.

   ```java
   public int number() {
     return(number);
   }
   public boolean equals(Object o) {
     return(number == o,number());
   }
   ```

If in the main method we have the lines

```java
MyClass myClass = new MyClass();
System.out.println(myClass.equals(new MyClass()));;
```

will there be a syntax error reported when the class definition is compiled? Will there be a run-time error when the program is executed? Explain.

5. (2 pts) Suppose we have the following class definition.

```java
import java.awt.event.*;
public class Question5 implements ActionListener {
  private int number;
  public Question5(int number) {
    this.number = number;
  }
  public static void main(String[] args) {
    Question5 question5 = new Question5(1);
    System.out.println(question5);
  }
}
```

Will there be a syntax error when this class definition is compiled? If not, what will be printed when the class definition is interpreted? Explain.