1. (2 pts) In the JOptionPane class, we use the method __________________ to ask for input from the user, and the method __________________ to display information to the user.

2. (2 pts) A set of statements not interpretable by a machine but readable by a human that contains a plan is called ________________, and the plan itself is called an ________________.

3. (2 pts) Given the following for loop, what is the equivalent while loop? Will the loop ever end?

   ```java
   for (int counter=1;counter<5;counter++)
   counter--; 
   ```

4. (2 pts) What does the following code print?

   ```java
   for (int counter=0;counter<20;counter++) {
   if (counter % 2 == 0 && counter % 3 == 0 && counter > 0)
   continue;

   if (counter % 4 == 0 && counter % 2 != 0)
   break;

   System.out.println(counter);
   }
   ```

5. (2 pts) There are two problems in the following method declaration. What are they?

   ```java
   public static int half(double a) {
   if (a > 0)
   return(a/2);
   }