1. Write a program TenHelloWorlds.java that prints "`Hello, World`" ten times.

```java
public class HelloWorld {
    public static void main(String[] args) {
        for(int x = 0; x < 10; x++){
            System.out.println("Hello, World");
        }
    }

}
```

2. Describe what happens if, in `HelloWorld.java`, you omit
    1. `public`

        Throws a runtime error

    2. `static`

        Throws a runtime error; the method is not static, should be defined as static

    3. `void`

        Throws a compilation error, return type required

    4. `args`

        Throws a compilation error, <identifier> expected

3. Describe what happens if, in `HelloWorld.java`, you misspell (by, say, omitting the second letter)
    1. `public`

        Error: Main method not found in class com.tiempo.activities.HelloWorld, please define the main method as: public static void main(String[] args)

    2. `static`

        Error: Main method not found in class com.tiempo.activities.HelloWorld, please define the main method as: public static void main(String[] args)

    3. `void`

        java.lang.NoClassDefFoundError: vid

4. `args`

Run Correctly

4. Describe what happens if you try to execute <u>Hi.java</u> with:

   1. `java Hi`

      Hi, Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: 0

   2. `java Hi @!&^%`

      Hi, @!&^%. How are you?

   3. `java Hi 1234`

      Hi, 1234. How are you?

   4. `java Hi.class Bob`

      Runtime error: Could not find or load main class Hi.class

   5. `java Hi.java Bob`

      Runtime error: Could not find or load main class Hi.java

   6. `java Hi Alice Bob`

      Hi, Alice. How are you?

5. Modify <u>UseArgument.java</u> to make a program <u>UseThree.java</u> that takes three names and prints out a proper sentence with the names in the reverse of the order given, so that for example, "`java UseThree Alice Bob Carol`" gives "`Hi Carol, Bob, and Alice.`".

```
6. public class UseThree {
7.
8.     public static void main(String[] args) {
9.         System.out.print("Hi, ");
```

```
10.          System.out.print(args[2]);
11.          System.out.print(", ");
12.          System.out.print(args[1]);
13.          System.out.print(", and ");
14.          System.out.print(args[0]);
15.          System.out.println(".");
16.      }
17.
18. }
```

1. Write a program Initials.java that prints your initials using nine rows of asterisks like the one below.

```
**          ***      ***********      **                 *                  **
**        ***        **          **        **              ***               **
**      ***          **            **      **          **  **            **
**   ***             **              **   **          **    **          **
*****                **              **     **       **       **       **
**   ***             **              **      **   **          **    **
**      ***          **            **        ** **            **  **
**        ***        **          **          ***             ***
**          ***      ***********            *               *
```

```java
public class Initials {
    public static void main(String[] args) {
        System.out.println("***********   **************   ***        ***");
        System.out.println("***********   **************   ***        ***");
        System.out.println("***              ***   ***   ***        ***");
        System.out.println("*******          ***   ***   *************");
        System.out.println("*******          ***   ***   *************");
        System.out.println("***              ***   ***   ***        ***");
        System.out.println("***              ***   ***   ***        ***");
        System.out.println("***********   **************   ***        ***");
        System.out.println("***********   **************   ***        ***");
    }
}
```

2. Describe what happens if, in `HelloWorld.java`, you omit
    1. `main`

        Compilation Error: Main method not found in class com.tiempo.activities.HelloWorld

    2. `String`

        Compilation Error: Main method not found in class com.tiempo.activities.HelloWorld

    3. `HelloWorld`

        Compilation Error: Could not find or load main class com.tiempo.activities.HelloWorld

4. `System.out`

Compilation Error: java.lang.Error: The method println(String) is undefined for the type HelloWorld

5. `println`

Compilation Error: java.lang.Error: The method out(String) is undefined for the type System

3. Describe what happens if, in `HelloWorld.java`, you omit
   1. the `;`

Compilation Error: java.lang.Error: Syntax error, insert ";" to complete BlockStatements

   2. the first `"`

Compilation Error: java.lang.Error: String literal is not properly closed by a double-quote

   3. the second `"`

Compilation Error: java.lang.Error: String literal is not properly closed by a double-quote

   4. the first `{`

Compilation Error: java.lang.Error: Syntax error on token ")", { expected after this token

   5. the second `{`

Compilation Error: java.lang.Error: Syntax error, insert "}" to complete ClassBody

   6. the first `}`

**Compilation Error: java.lang.Error: at
com.tiempo.activities.HelloWorld.main(HelloWorld.java:4)**

   7. the second `}`

Compilation Error: java.lang.Error: Syntax error, insert "}" to complete ClassBody

4. Describe what happens if, in `HelloWorld.java`, you misspell (by, say, omitting the second letter)
   1. `Main`

Error: Main method not found in class com.tiempo.activities.HelloWorld, please define the main method as: public static void main(String[] args)

2. `String`

java.lang.NoClassDefFoundError: [Sting;

3. `HelloWorld`

Error: Could not find or load main class com.tiempo.activities.HelloWorld

4. `System.out`

Error: Main method not found in class com.tiempo.activities.HelloWorld, please define the main method as: public static void main(String[] args)

5. `println`

Error: Main method not found in class com.tiempo.activities.HelloWorld, please define the main method as: public static void main(String[] args)

5. I typed in the following program. It compiles fine, but when I execute it, I get the error `java.lang.NoSuchMethodError: main`. What am I doing wrong?

Missing String args[]