Our first sip of Java.

1. Questions?

2. The first Java program, saved in first.java:

```java
// A first program.
public class first {
    public static void main(String[] args) {
        System.out.println("Hello, world."); // adds nl at end, automatically
    }
}
```

The program is compiled into an object file, using the Java compiler, javac:

```
javac first.java
```

This is then executed (as opposed to interpreted) using the Java virtual environment:

```
java first
```

3. Some features of Java programs (compared to Python):

   (a) All code is part of some class. Most code is found within a class's method. Running a program causes a main method to be executed.

   (b) Everything has a type. Primitive types include int, float, char, and boolean (true/false). Other types are classes of objects: String, arrays of other types, and Vectors. The non-reference indicator is null.

   (c) You must declare the type of a variable or constant before it is defined.

   (d) The primary for-like looping mechanism has a three expression form: the first expression is the loop variable initializer, the second is the condition, the third is a loop variable update that is executed between iterations.

   (e) Within class definitions, there is an implied reference to the object, this (as opposed to self). The value of this is an implied parameter.

   (f) There is no tuple type.

   (g) There is no parallel assignment.

4. A few example programs.