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## 2.8: Basic I/O in Java

Java supports a very rich and powerful I/O architecture, but to understand it you've got to get some of the concepts of object-oriented programming under your belt. We're still at that awkward stage, so for now, here are a few idioms you can just take for granted that will get you up and running.

`System.out.print()` and `System.out.println()` are the workhorse functions for displaying text on the console. They will accept any type of Java data and display it. `println()` appends a carriage return; `print()` does not. Given what you know about Strings, you can print just about anything using them:

```
System.out.println(3); // OK
System.out.println(3.2); // OK
System.out.println("The answer is " + 3.2); // OK
```

Sometimes after you `print()` something, nothing appears on the screen until you call `System.out.flush()`. `println()` doesn't have this "problem."

Understanding input is a bit tougher. You're going to have to take my word for it, but if you want to read lines from the console, you need to do something like this:

```
// put this at the very top of your file:
import java.io.*;

// change the first line of main to look like this
public static void main(String [] argv) throws IOException
{
    // then, in your main() function:
    BufferedReader stdin =
        new BufferedReader(new InputStreamReader(System.in), 1);

    // then, to get a line of user input
    //as a string:
    String s = stdin.readLine();

    // ... or to read an integer
    int i = Integer.parseInt(stdin.readLine());
```