

Printing things to the console

```
System.out.println(...)
```

1. How to print text to the console (output)

```
import java.util.*;

/**
 * Class Hello - prints simple statements to the console
 *
 * @author Baker Franke
 * @date 09.06.06
 * @assignment My First Program!
 */
public class Hello
{
    public static void main(String[] args){

        // part 1
        System.out.println("Hello, Baker");

        // part 2;
        String name = "Baker";
        System.out.println("Hello, "+name);

        // part 3;
        System.out.println("Two plus Three is: 2 + 3");

        //part 4;
        System.out.println("Two plus Three is: "+(2+3));

        // part 5
        System.out.println("2 + 3 = " + (2+3));

        //con'd on next slide...
```

2. How to print text to the console (output)

```
// ...con'd from previous section

// part 6
double a = 7.0;
double b = 5.0;
System.out.println("a+b="+a+b);

// part 7
System.out.println(a+" "+b+"="+a+b);

// part 8
double c = a+b;
System.out.println(a+" "+b+"="+c);

} // end main
} // end class
```

Getting input from the user

Code Sample Slides

1. Setup to receive input from the keyboard

```
import java.util.*;

/**
 * Class ScannerTest - Shows various ways to use the Scanner class
 *
 * @author Baker Franke
 * @date 09.06.06
 * @assignment Lecture 1
 */
public class ScannerTest
{
    public static void main(String[] args){

        Scanner keyboard = new Scanner(System.in);

        double userInput;

        System.out.println("Enter a number:");
        userInput = keyboard.nextDouble();

        System.out.println("You entered: "+userInput);
    }
}
```

2. Getting other kinds of data: Strings

```
import java.util.*;
public class ScannerTest
{
    public static void main(String[] args){

        Scanner keyboard = new Scanner(System.in);

        String name;

        System.out.println("Enter your name:");

        name = keyboard.next(); // only gets next "token"

        System.out.println("Hello, "+name+"!");
    }
}
```

3. Multiple inputs on one line

```
import java.util.*;
public class ScannerTest
{
    public static void main(String[] args){
        Scanner keyboard = new Scanner(System.in);

        String firstName, lastName;

        System.out.println("Enter your first and last name.");

        //the next two lines will force the program to wait for
        // two distinct tokens.
        firstName = keyboard.next();
        lastName = keyboard.next();

        System.out.println("Hello, "+firstName+" "+lastName+"!");
    }
}
```

4. Do something interesting

```
import java.util.*;
public class ScannerTest
{
    public static void main(String[] args){
        Scanner keyboard = new Scanner(System.in);

        double a, b;

        System.out.println("Enter the lengths of two sides of a right triangle:");
        a = keyboard.nextDouble();
        b = keyboard.nextDouble();

        double result;
        result = (a*a) + (b*b);
        result = Math.sqrt(result);

        System.out.println("The hypotenuse is of length: "+result);
    }
}
```