

Scanner is a class library

```
1 import java.util.Scanner; // This is an import statement
```

```
2  
3 public class JavaIntro ← class header
```

```
4 {  
5     public static void main(String[] args) ← method header
```

```
6     {  
7         int num_students = 31; ← variable identifies (or names) ★
```

```
8         double periodNumber = 3;
```

```
9         String password = "Tam Hawks";
```

```
10        String another_password = new String("Tam Hawks"); ← This is a constructor
```

Variable types

```
11  
12  
13  
14  
15  
16  
17  
18 System.out.println(num_students); // prints on different lines  
19 System.out.println(periodNumber);  
20 System.out.print(password);  
21 System.out.print(another_password); // prints on the same line
```

method call on a System object

```
22  
23  
24  
25 String first_letter_of_password = password.substring(0, 1); ← method call on the 'password' variable
```

★ underscores are stylistic!

method arguments two

```
26  
27  
28  
29 int length_of_password = password.length();
```

method call w/ NO arguments

```
30  
31  
32  
33 // the code below will generate a syntax error - why???  
34 //String passwordLength = password.length();
```

method call w/ one argument

```
35  
36  
37  
38  
39 System.out.println(first_letter_of_password);  
40 System.out.println(length_of_password);
```

```
41  
42  
43  
44 }  
45 }  
46
```

Syntax Notes:

Symbol or Character	What these characters are used for
Semi-colon ;	- statements! <pre>int x = 3; System.out.println();</pre>
Parentheses ()	- method calls and conditional statements ★ these can exist in ^{the} method header for a method definition!
Curly Brackets {}	- code blocks and - initialization of arrays
Corner Brackets []	- 1D Arrays $\begin{matrix} \text{int} \\ \text{int} \end{matrix}$ 2D Arrays
A period .	a <u>method call on an object</u>
Two Forward Slashes //	single-line comment
/* a set of these */	multi-line comment
/** a set of these */	multi-line comment in Java Doc!
Underscore _	style for naming variables