Announcements

• New project will probably be posted later today (?)
Example: EscapeSequences.java

Try writing a program that prints on the console:

I said “hi.”

Common escape sequences for String literals:

<table>
<thead>
<tr>
<th>Escape Sequence</th>
<th>Description</th>
</tr>
</thead>
</table>
| \
”              | Quotation mark    |
| \n              | New line          |
| \t              | Tab               |
| \\             | One slash         |
What is the result of division of two integers in Java?

Example:

What is the value of the expression 28/6
Comparison Operators

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;</code></td>
<td>Less than</td>
</tr>
<tr>
<td><code>&gt;</code></td>
<td>Greater than</td>
</tr>
<tr>
<td><code>&lt;=</code></td>
<td>Less than or equal to</td>
</tr>
<tr>
<td><code>&gt;=</code></td>
<td>Greater than or equal to</td>
</tr>
</tbody>
</table>

The following are “boolean expressions”:

- $7 < 12$
- $8 > 50$
- $2 \leq 7$
- $2 \leq 2$
- $x < 50$
- $y \geq z$
Equality Operators

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>==</td>
<td>Equality</td>
</tr>
<tr>
<td>!=</td>
<td>Not equal to</td>
</tr>
</tbody>
</table>

The following are “boolean expressions”: 

- `7 == 12`
- `7 != 12`
- `x == 5`
- `z != y`
Example: EqualityWithObjects.java

String a = myScanner.next();
String b = myScanner.next();
System.out.println(a == b);

Results are probably not what you want. (We’ll see why later…)

IMPORTANT: == works with primitives. To compare two objects use

    a.equals(b)       // boolean expression
If Statement

Execute a block of code sometimes:

```java
if (<boolean expression>) {
    <Put code here>
}
```

Example: SimpleIf.java
If-Else Statement

Execute either one block or another (never both):

```java
if (<boolean expression>) {
    <Put code here>
} else {
    <Put alternative code here>
}
```

Example: SimpleIfElse.java
Note about braces...

• Braces are optional for blocks containing a single statement.
  
  if (x < y) {
    System.out.println("Hi");
  }

  if (x < y)
    System.out.println("Hi");

• It’s better style to include the braces anyway!
Logical Operators

<table>
<thead>
<tr>
<th>&amp;&amp;</th>
<th>and</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>!</td>
<td>not</td>
</tr>
</tbody>
</table>

Examples: LogicalOps1.java, LogicalOps2.java
Nesting if and if-else statements

Examples: Nesting1.java, Nesting2.java

Tricky Example: WhatDoesItDo.java
“else if” style
Examples:
• Cascading1.java
• Cascading2.java