Nested Loops

Another Example: Stripes.java
One Example, 3 Techniques

User enters a size. For size 5, print:

XOOOO
XXOOO
XXXOO
xxxxo
xxxxx

1. Using a “formula” to compute number of O’s on current row
2. Maintaining a variable for number of O’s on current row
3. Using a comparison to decide whether to print X or O
Writing static methods

• So far all of our examples have had just one method, main
• Most programs have many methods
• Our methods will say “static” for now - we’ll explain this later
• (We are still not really doing “Object Oriented” programming)
## Operator Precedence

<table>
<thead>
<tr>
<th>Category</th>
<th>Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unary</td>
<td><code>++, --, !, -(unary), + (unary)</code></td>
</tr>
<tr>
<td>Multiplicative</td>
<td><code>*, /, %</code></td>
</tr>
<tr>
<td>Additive</td>
<td><code>+ (binary), - (binary)</code></td>
</tr>
<tr>
<td>Comparison</td>
<td><code>&lt;, &gt;, &lt;=, &gt;=</code></td>
</tr>
<tr>
<td>Equality</td>
<td><code>==, !=</code></td>
</tr>
<tr>
<td>And</td>
<td><code>&amp;&amp;</code></td>
</tr>
<tr>
<td>Or</td>
<td>`</td>
</tr>
<tr>
<td>Assignment</td>
<td><code>=, +=, -=, *=, /=, %=</code></td>
</tr>
</tbody>
</table>

- **Example:** \( b = 1 + 7 > ++z || 2 * 3 <= 7; \)
- **Associativity**
Writing static methods

Examples:

- public static void printTwentyStars() // print 15 asterisks
- public static void printStars(int n)  // print n asterisks