Announcements

• Project due tomorrow night (Thursday)
• Exam #2 will be on Monday
Return and go over Quiz...
Arithmetic Example

Example: SimpleArithmetic.html
Arithmetic Example

What went wrong?
How does a calculator handle this?

First Conclusion: We cannot rely on == to compare “floating point” values.

What can we do instead?

Example: SimpleArithmetic2.html
Representing Money

Second Conclusion: Never use floating point values to represent money!

Instead of using dollars:

```
var amount = 10.48;  // $10.48
```

Use pennies:

```
var amount = 1048;
```
Increment Operators

Three ways to increment a variable:

- \( x = x + 1; \)
- \( x++; \)
- \( ++x; \)

How is \( ++x \) different from \( x++ \)?

They carry different values:

- \( x++ \) → value matches \( x \) before increment
- \( ++x \) → value matches \( x \) after increment

Example: Increment.html
Decrement Operators

Three ways to decrement a variable:

\[ x = x - 1; \]

\[ x--; \]

\[ --x; \]

Same semantics as “++”...
Other Shortcuts

<table>
<thead>
<tr>
<th>x = x + 7;</th>
<th>x += 7;</th>
</tr>
</thead>
<tbody>
<tr>
<td>x = x - 7;</td>
<td>x -= 7;</td>
</tr>
<tr>
<td>x = x * 7;</td>
<td>x *= 7;</td>
</tr>
<tr>
<td>x = x / 7;</td>
<td>x /= 7;</td>
</tr>
</tbody>
</table>