Arithmetic Expressions
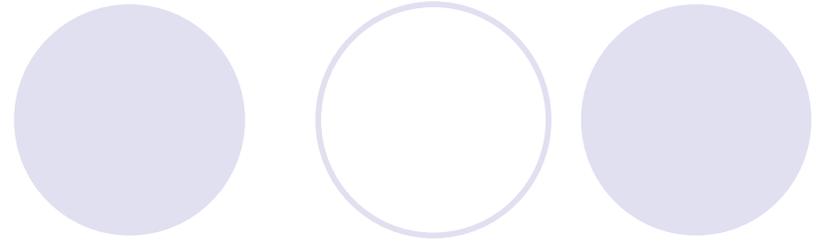
Chapter 3

For Next Time

- Read Chapter 3

The Common Arithmetic Operators

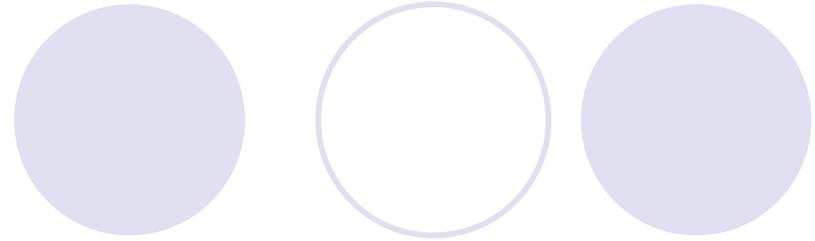| Operator	Meaning
+	addition
−	subtraction
*	multiplication
/	division
%	modulus (remainder)

Binary vs. Unary Operators

- `+, -, *, /, %` are *binary* operators
  - Two operands
- `+` (unary) and `-` (unary) are *unary* operators
  - One operand

Precedence and Associativity

- The unary operators have highest precedence
- Next comes the multiplicative operators $(*,/,\%)$
- Finally, the additive operators $(+,-)$
- This is the same precedence rules as normal arithmetic
- Evaluation is performed for these operators left to right

+ is Overloaded

- An operator that has different meanings in different contexts is said to be *overloaded*
- + with numbers means *addition*
- + with strings means *concatenation*
  - Splicing one string with another
  - Strings can be concatenated with nonstrings

Arithmetic Abbreviations

- `x = x + 1;`
  - `x += 1;`
  - `x++;` or `++x;`
- Similar for `-,*,/,%`

Next . . .

Computing with Objects