

# Conditionals and Boolean Logic

9-15-2010

# Opening Discussion

- Do you have any questions about the quiz?
- How is the reading going? Please suggest changes or let me know when you find errors/typos.
- Minute Essays
  - Missing the basics? Come talk to me.
  - ICPC solutions.
  - Submitting solutions? Solving multiple?
  - Translation to Java.

# Our Problem

- We want to rewrite `walkToward()` and `pace()` so that they use conditionals instead of math.
- We might also want the person to do something when it gets where it is going in `walkToward()`.

# Full Syntax of if

- We will normally write an if statement with the following syntax.
  - if(condition) {
    - statements
  - } [ else {
    - statements
  - } ]
- The first statements only execute if the condition is true.
- Else is optional, executes if condition is false.

# Comparison Operators

- If you want to compare two numbers use the following.
  - == for equality. Note there are two of them.
  - != for inequality.
  - >, <, >=, <= for what they look like.
- With objects you generally want to call the equals method.
  - if(v1.equals(v2)) ...

# Boolean Logic

- We only want the person to enter the house if both dx and dy are zero. To do this we use Boolean logic.
- Logic operators
  - || is inclusive or.
  - && is and.
  - ! is not.
- Let's look at truth tables for these.
- Use parentheses to group things.

# Minute Essay

- Do you have any questions about conditionals or Boolean logic?
- The next round of interclass problems will be this coming Monday.