Conditionals and Boolean Logic

2-1-2010
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
  - Purpose of IcPs. Seeing what you really understand.
  - Feeling limited in what you can do?
Our Problem

- Last time we fixed our division by zero using an if statement.
- We might also want the person to do something when it gets where it is going.
- We could also rewrite walkToward() and pace() so that they use conditionals instead of math.
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.