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.