Announcements

• Midterm study guide, sample midterm are on Canvas
  • Sample midterm is shorter than the real one will be
  • I will post answers to it on Friday

• On problem 2 of the homework, and the extra credit, lots of folks are getting the following error message:
  • The autograder failed to execute correctly, Please ensure that your submission is valid. Contact your course staff for help in debugging this issue.
  • The problem is that you have an infinite loop.
  • Most common reason for extra credit: not taking a negative decrement into account. Try “loopier 50 5 -10” and see what happens.
++, --

• How they work depends on if they come before or after the value
• If before, use the value of the variable and *then* increment or decrement the variable
• If after, increment or decrement the value of the variable and *then* use the value

• Examples (assume a = 5 initially)
  • x = ++a; x is 6, a is 6
  • x = a++; x is 5, a is 6
  • x = --a; x is 4, a is 4
  • x = a--; x is 5, a is 4
Evaluation of Arguments to Functions

• The order is not defined; it is usually left to right or right to left
  • But it could be much weirder . . .
• Example: suppose x is 5

\[
\text{printf} \left( \text{"%d %d\n"}, \text{++x}, \text{++x} \right)
\]

could print 6 7 or 7 6
Converting Chars to Numbers

- Convert printing char to integer
  - \( \text{ch} - '0' \)
- Convert integer (between 0 and 9 inclusive) to printing char
  - \( \text{ch} + '0' \)
- Find out which number a letter of the alphabet is
  - \( \text{ch} - 'a' \) (for lower case), \( \text{ch} - 'A' \) (for upper case)
- Find out which letter of the alphabet a number between 0 and 25 inclusive) is
  - \( \text{ch} + 'a' \) (for lower case), \( \text{ch} + 'A' \) (for upper case)