

Lecture 11: October 18, 2019

Reading: *C text*, §9

Assignments: Extra Credit #1: due October 21, 2019
Homework #2, due October 24, 2019

1. Greetings and felicitations!
 - (a) When you upload your file to Canvas, it may append a number. That's fine.
 - (b) For problem 4, there should be *one* drawn rectangle, and it surrounds the rectangle with the given dimensions.
2. Recursion
 - (a) Expressing a problem in terms of a simpler version of itself — use $n!$
 - (b) Function calling itself
 - (c) Similar to mathematical induction, but backwards
 - (d) Structure: base case, recursive case
 - (e) What happens if you omit the base case? (Bad things ...)
3. How it works
 - (a) Program stack
 - (b) Walk through *nfact.c*, with $n = 4$
 - (c) Note *nfact* calls *nfact*
4. Recursive palindrome program
 - (a) Go through algorithm, working from outside in
 - (b) Write recursive case
 - (c) Write base case
 - (d) Put them together in *ispal.c*