

Lecture 15: May 28, 2024

Reading: zyBooks text, §2.10, 2.19, 3.13, 3.14, 8.5, 10.8 **Assignments:** Homework 3, due May 29 (*Note extension*);
Extra Credit 2, due May 29 (*Note extension*)

1. Random and pseudorandom number generation
 - (a) Pseudorandom numbers vs. random numbers
 - (b) Pseudorandom number generators `rand`, `random` [*prand1.c*, *prand2.c*]
 - (c) Seeding a pseudorandom number generator [*prand1.c*]
 - (d) Obtaining random numbers [*rand.c*]
2. String functions [*strings.c*]
3. Copy, compare sequential bytes in memory [*mem.c*]
4. Math functions [*mhodge.c*]
5. Buffer overflow on the stack [*bad2.c*]
6. Writing a program with random numbers
 - (a) Monty Hall problem [*monty1.c*]
 - (b) Basic program, human does all selection of doors [*monty2.c*]
 - (c) Fix bug and simplify calculation of win/lose [*monty3.c*]
 - (d) Add randomness [*monty4.c*]
 - (e) Delete Monty showing user a door [*monty5.c*]
 - (f) Change main to determine whether switching wins or loses [*monty6.c*]
 - (g) Clean up, and add clearer output at the end [*monty7.c*]
 - (h) Make the number of rounds a macro [*monty8.c*]
 - (i) Let user specify number of games on the command line [*monty9.c*]