Cheat Sheet for final!

- {} : used to group statements & for scopes
- Signed nums include - while unsigned start at 0
- add two opposite nums (one + & one -) do twos complem.
- floating point are proper subsets of real nums,
rational & ints   ⊸ floatng points ≠ real nums
   ↳ they are simply an approximation!
    ↳ float ≠ Q, but can be represented w/ IEEF 754
during LS byte, LE is the low add & BE is high

Little endian   Big endian

12	34	56		56	34	12

- while + for loops are top-test loop while do while is bo
- mult: shift & +, div = shift & -
- C uses call by values
   ↳ copy of actual parameters
- passing in pointer is call by ref & directy effects
the actual parameters
- array = pointers → in c   ; &= add of var
   ↳ stored in memory   * = deferences a pointr
- pointer = var that holds an address
- dynamic allocation → heap, else, stack

$O(n^2)$ alg $O(n \log n)$
- bubble   - shell
- quick sort   - merge
- insertion   → heap
- selection   → quick sort

heap = memory can be accessed w/ access to pointers

regEx; • →any +→ 1 or more, * zero > . ? one or zero

sentinel nodes = mark end of Linked List

hashing is uniformly distributed

—in order to avoid hash collision, we can chain
or do open addressing

—bloom filters tell you if an element is
present

Trees consist of nodes & children

tries = ordered data struct