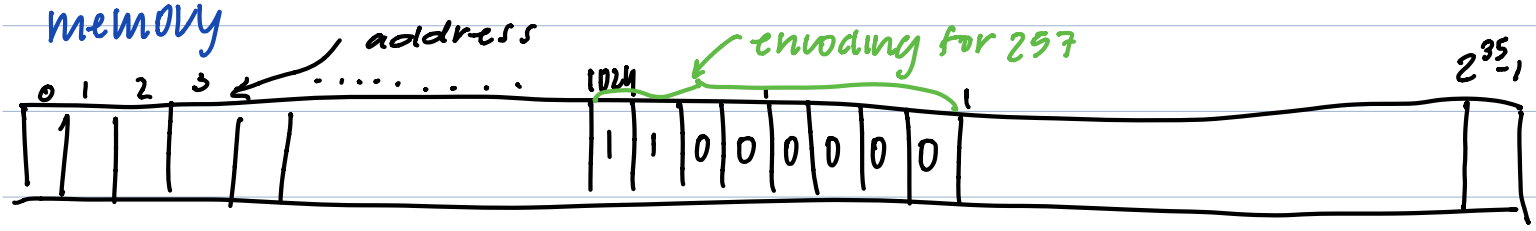
Compsci 61 Lecture 1 — Data Representation — September 3rd, 2019

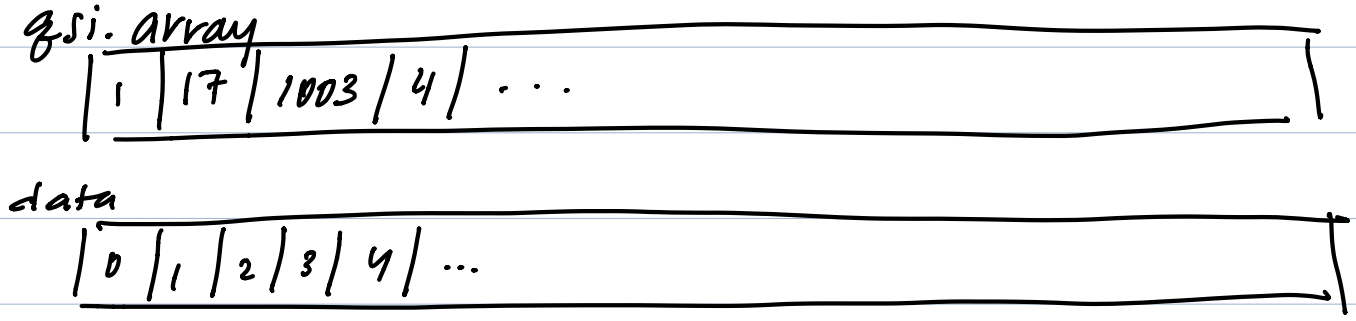
problem set 1 is out, due in 2 weeks

late policy: 144 late hours (6 days)



2^8: 256 choices for value (0-255)

test access



RAM: any byte, any access index, any order

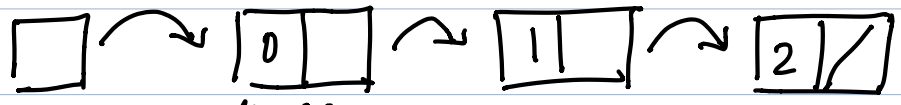
~100x slower to access in random order rather than sequentially

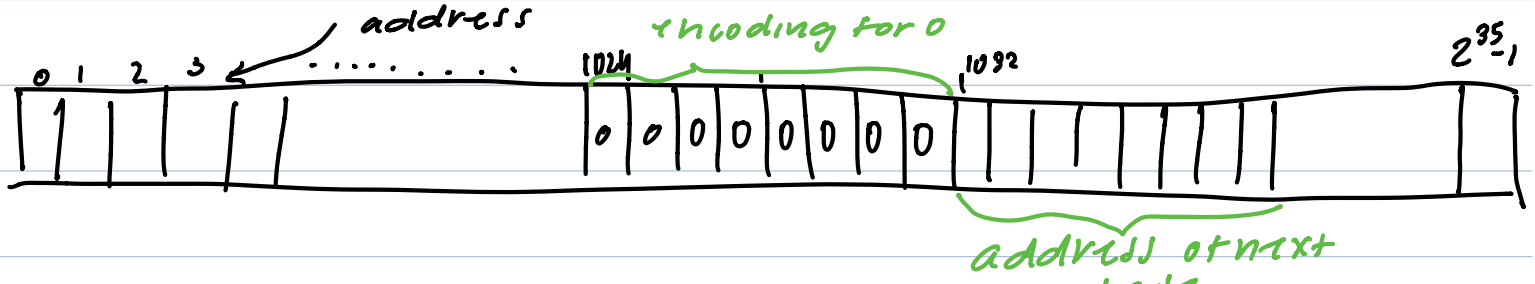
test insert 0: Linked list

* lists in C++ are doubly

qsi.array 0, 1, 2

list*





inserting in order is much slower than inserting from a reversed list (for a linked list).

test insert 1: vector

Vectors are sequentially ordered in memory, so they need less space in memory and it has a huge speed advantage. >1,000,000 linked list becomes faster.

add

* Objdump program