

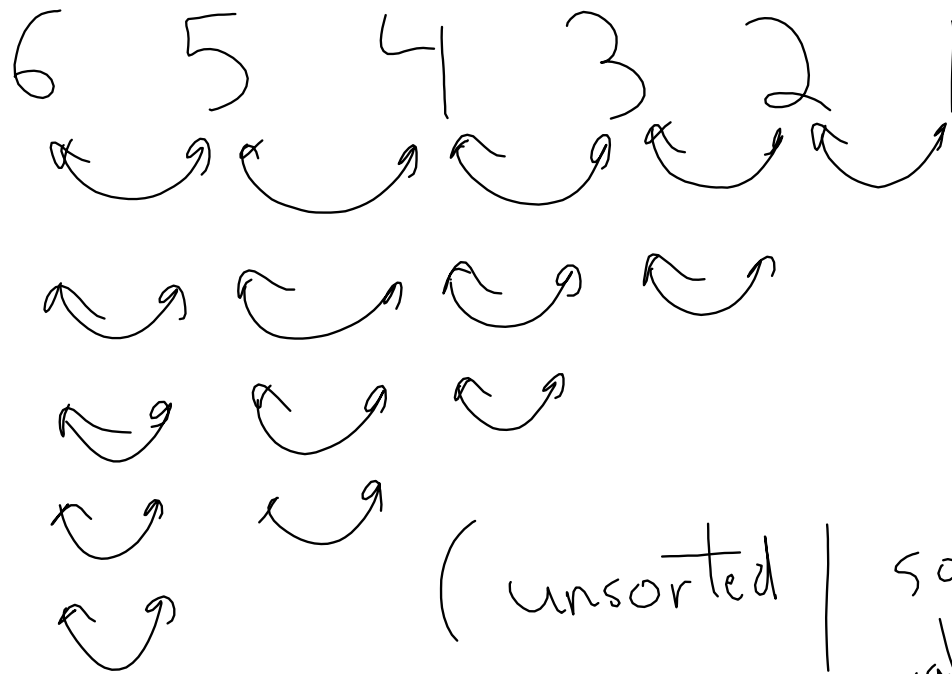
Friday, October 28, 2016
10:51 AM

Yes, this is CS 107.

Friday, October 28, 2016
10:54 AM

[http://cs.gettysburg.edu/
~ilinkin/courses/Fall-2016/cs107/assignments/a8.html](http://cs.gettysburg.edu/~ilinkin/courses/Fall-2016/cs107/assignments/a8.html)

Bubble Sort



(unsorted | sorted
values are
in place)

Insertion Sort

Friday, October 28, 2016
11:09 AM

6 5 4 3 2 1
└───┬───>

5 6 4 3 2 1

4 5 6 3 2 1
└───┬───┬───>

3 4 5 6 2 1
└───┬───┬───┬───>

2 3 4 5 6 1
└───┬───┬───┬───┬───>

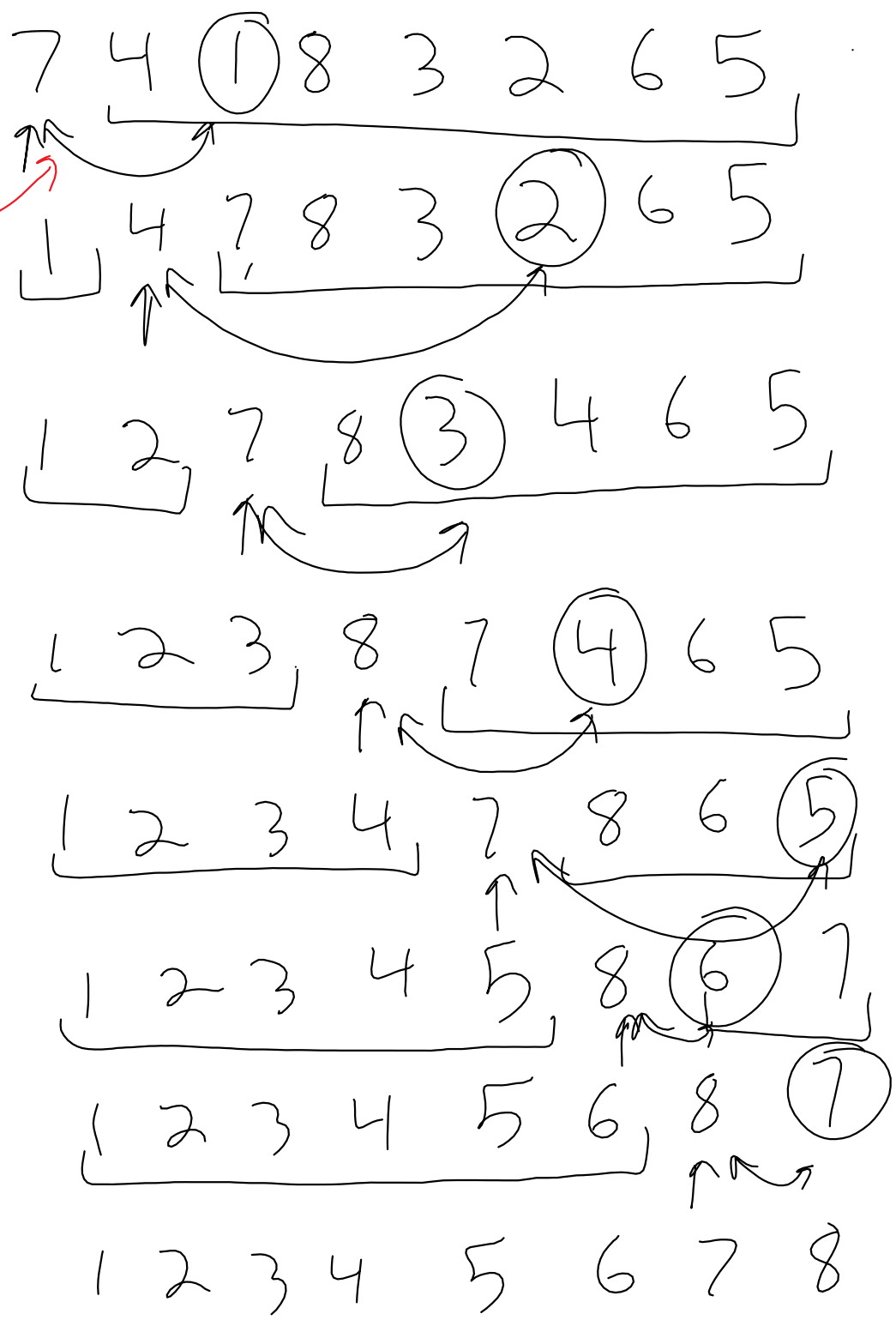
1 2 3 4 5 6

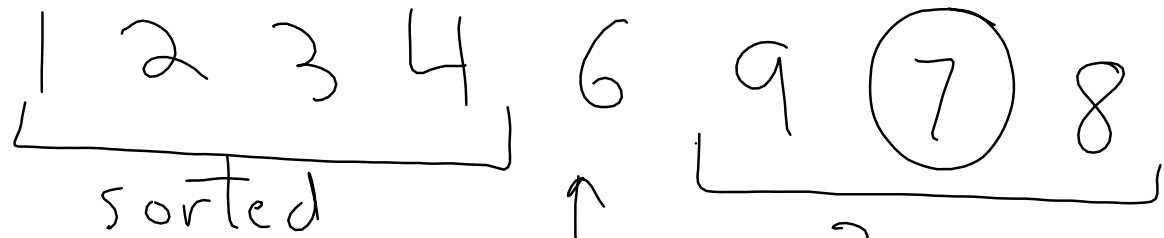
(sorted values may not be in place | unsorted)

Selection Sort

findMin, findMinIndex

check
then
swap





swap?

$6 < 7$, no

(sorted values are in place { un-sorted })

findMinIndex(data, start)

find the index of the smallest
value starting at index
given by "start".

current = 1

loop:
current
from
1 to
length(data) - 1

start = current + 1
idx = findMinIndex(data, start)
if (data[idx] < data[current])
swap them

Count important operations

: swaps, comparisons

Generalize to vector's
length