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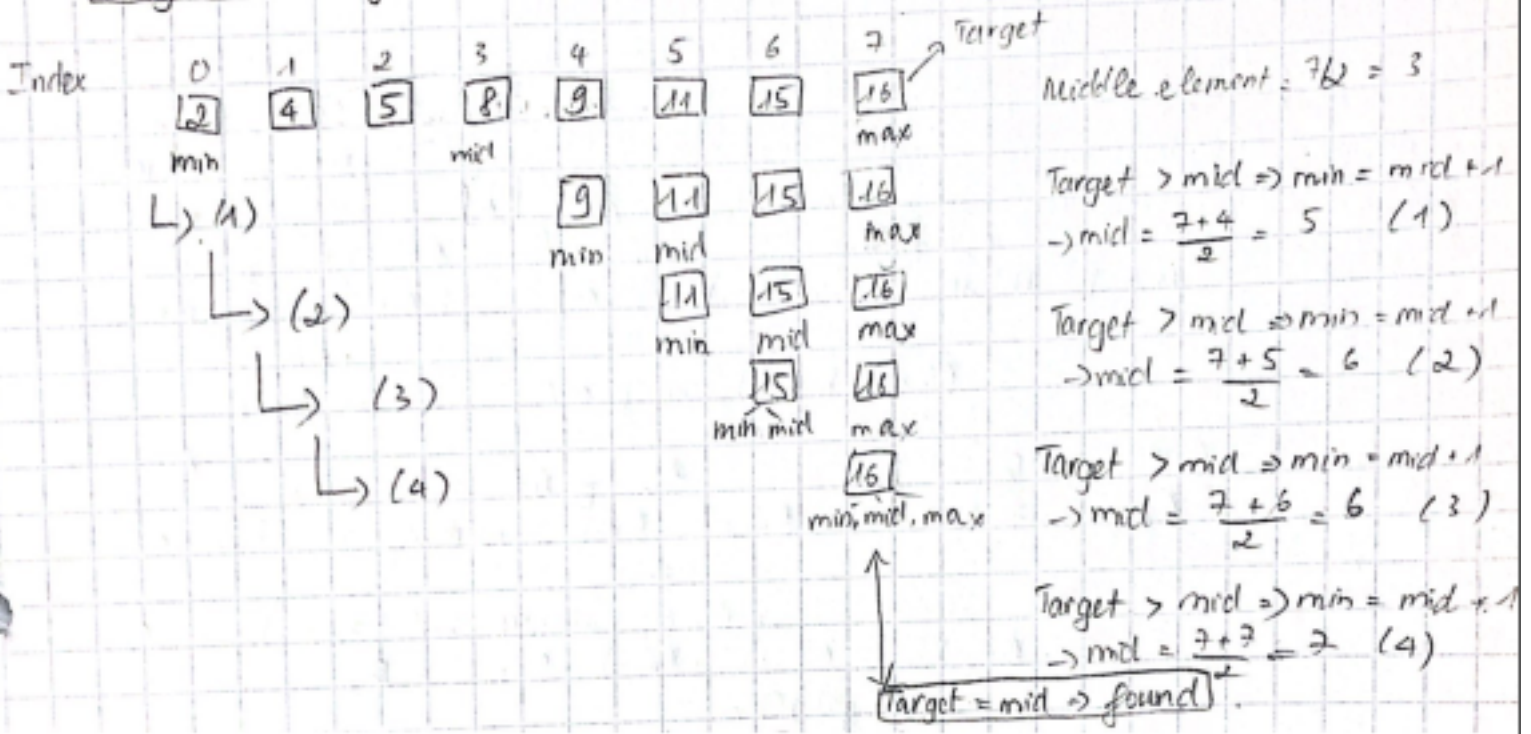
CSC 143 Winter 2021

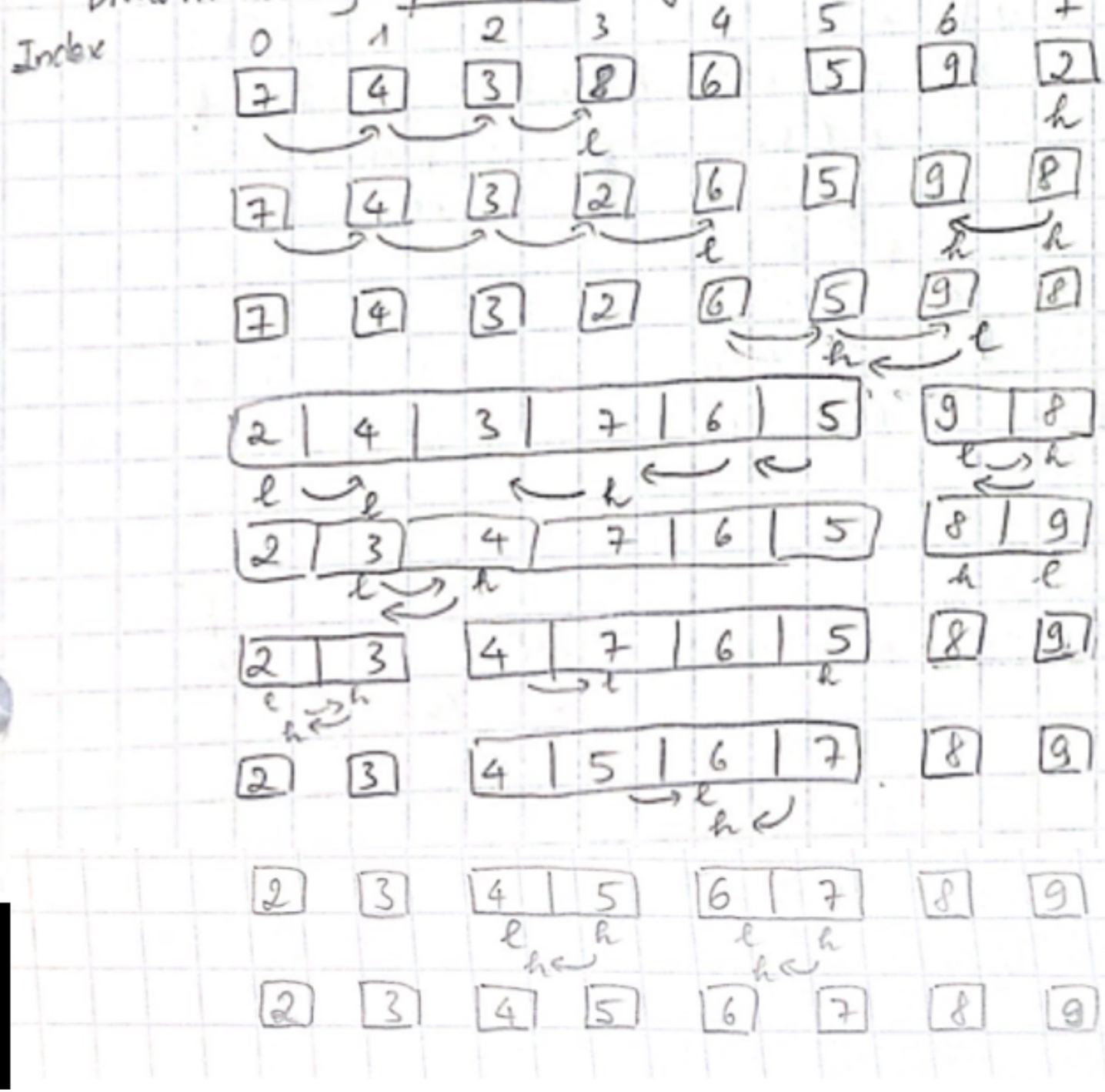
Search / Sort Algorithms

1) Consider an array of integers: 2, 4, 5, 8, 9, 11, 15, 16
Draw out how the array would search for the value 16 using the binary search algorithm.



2, Consider an array : 7, 4, 3, 8, 6, 5, 9, 2

Draw... using quick sort algo.



h = high, l = low

pivot = 8

after swap → go up to test
list[low] < 8 < list[high]

h < l . partition happens at "5"

pivot = 3 (1st half); pivot = 9 (2nd half)

swap (4,3) & swap (9,8)

pivot = 2 ; pivot = 7

swap (7,5)

pivot = 4 ; pivot = 6

→ Sorted.