

## **Computer Programming**

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Session: Quiz on Sorting





## Q1. Selection Sort can be used to sort numbers in

A. Ascending orderB. Descending orderC. Any user defined orderD. None of the above

Recap Quiz



- Q2. In Selection Sort, we reduce a problem to a smaller instance of the problem by finding
- A. An element at one end of the sorted order
- B. An element in the middle of the sorted order
- C. An element at any random position in the sorted order
- **D.** None of the above





- Q3. Sorting as a computational technique is useful for
- A. Searching an element in an array
- B. Finding the maximum or minimum element in an array
- C. Adding up the elements in an array
- D. Finding the sum of squares of elements in an array

**Practice Question 1:** 



## **Consider the following loop in Selection Sort:** for (currTop = 0; currTop < n; currTop ++) {</pre> currMaxIndex = findIndexOfMax(A, currTop, n); swap(A, currTop, currMaxIndex); Identify as many places in the loop where redundant computation can be eliminated





**Unsorted array A containing n elements** 



Can we adapt/modify Selection Sort so that we save some computation compared to Selection Sort, and A is divided into three sorted segments (not necessarily of same length) 0 3 9 1 6 7 8 2 2 3 4 5