For the second day of class this week, please consider the following basic sort:

First, find the index of the smallest element of the array. Interchange the smallest element and the first element. Next, find the index of the smallest element in the array between the second position and the end, inclusive. Interchange the element there with the element in the second position. Repeat for the third, fourth,... positions, until the array is sorted. For example, $< 3, 18, 7, 2 > \rightarrow < 2, 18, 7, 3 > \rightarrow < 2, 3, 7, 18 > \rightarrow < 2, 3, 7, 18 > .$

Give pseudocode for this algorithm.

Does the running time depend on the instance, or just the length of the array?

Give a Θ - bound on the running time.