2   Argue selection sort correctness

① Initialization: It is true prior to the first iteration of loop.

     When $i = 0$, subarray with 0 element is sorted.

② Maintenance: If it is true before an iteration of loop, it
        remains true before the next iteration.

     inside inner loop, find minimum element between i to $n-1$
          and swap with the current position.

③ Termination:

     When loop terminates, the invariant give us a useful property
     that helps show that the algorithm is correct.

     After n iteration, outer loop terminates and function
     return sorted array.