Module 1 Application Exercise

1.6.70) Efficient algorithm to reverse arr A in place

There are three possibilities for A:

- A is empty
- A has an even amount of elements
- A has an odd amount of elements

A two pointer method where “start” pointer starts at 0 and “end” pointer starts at the len of A should address all of these. At each iteration A[start] and A[end] will get swapped and start will increment by 1 and end will decrement by 1 until start >= end at which point the array will be in reverse order.

```
#code start
int start = 0
int end = len(A)

#swap
while start <= end:
    temp = A[start]
    A[start] = A[end]
    A[end] = temp
    start +=1;
    end -=1;
```

Space = O(1)
Time = O(n)