An inversion count of an element k in a sequence of integers is how many numbers to the right of k that are greater than it.

ex. $1, 2, \underbrace{3, 4}$: the element 2 has an inversion count of 2.

The sequence $1, 2, 3, \ldots, 10$ has ~~a~~ total inversion count of $9+8+7+6+\ldots+1 = 45$ (add up inversion count of each element).

The reverse sequence $10, 9, 8, \ldots, 1$ has a total inversion count of 0.

I claim that every swap changes the total inversion count by an odd number.

$$\underbrace{\ \ldots\ }\ p\ \underbrace{\ \ldots\ }_{\text{Area } R}\ q\ \underbrace{\ \ldots\ }$$

Assume $p > q$ where p and q are elements to be swapped.

Let there be x numbers in area R greater than p, y numbers between p and q, z numbers less than q.

By moving p to where q is, the sequence loses x inversions and gains $y+z+1$ (the $+1$ represents $p>q$).

By moving q to where p is, the sequence loses z inversions and gains $x+y$.

Thus, the total change per swap is $-x+z+y+1-z+x+y$

$= 2y+1,$

an odd number.

Swapping 20 times will change the total inversion count by an odd $\times$ even $=$ even number. Thus, the transition between 45 to 0 inversion totals will never be achieved.