Sorting Examples

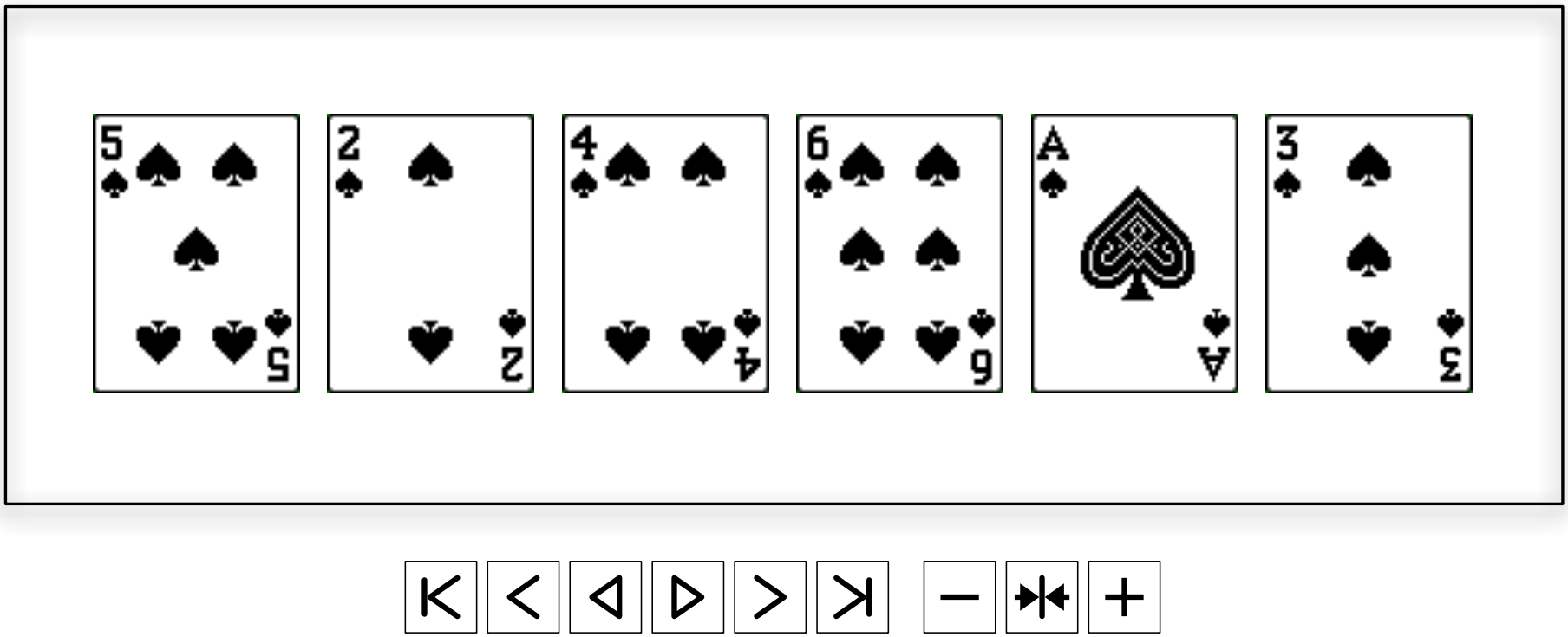
CS 202

Department of Computer Engineering
Bilkent University

Slides adapted from Aybar Acar

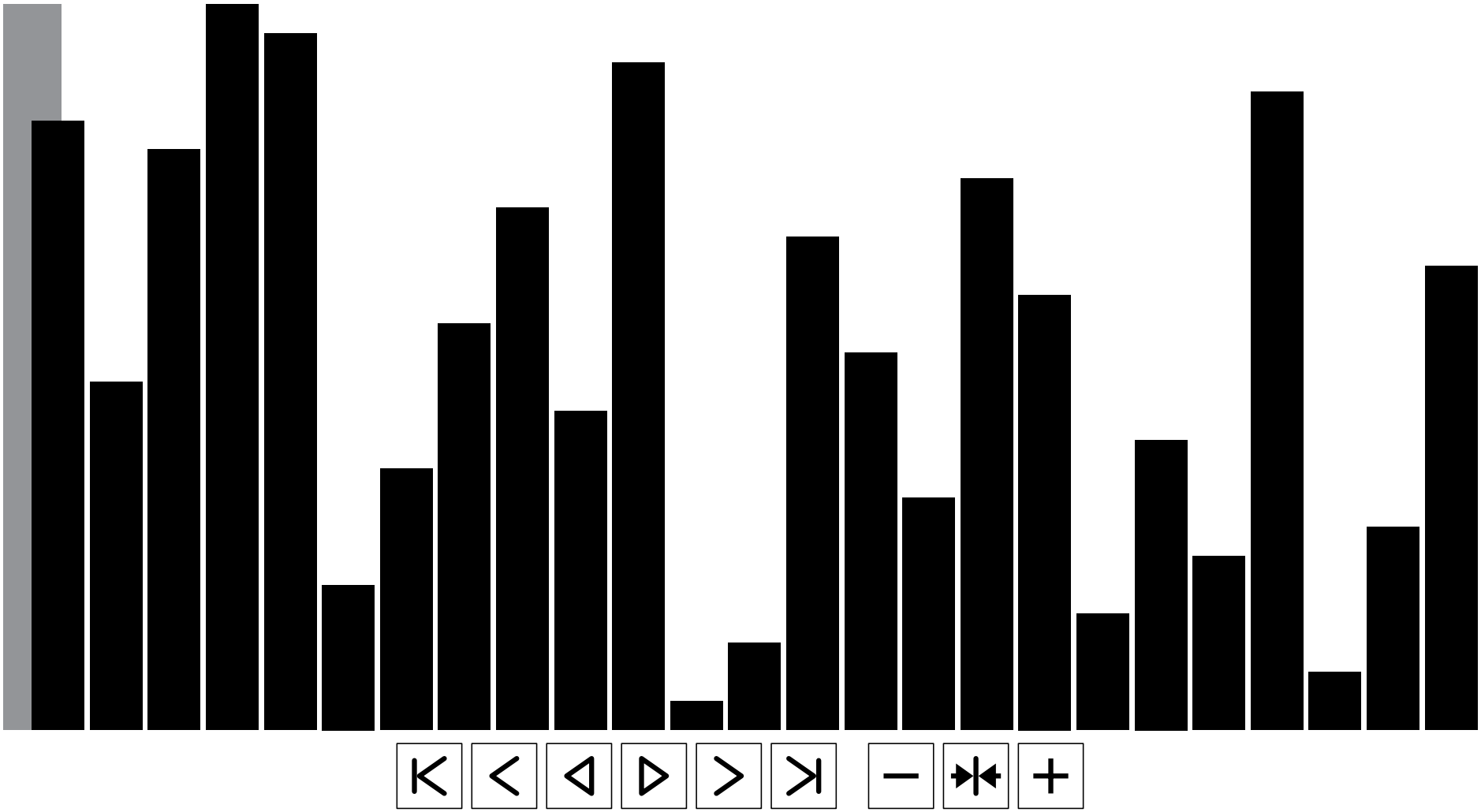
Spring 2015

Playing Cards



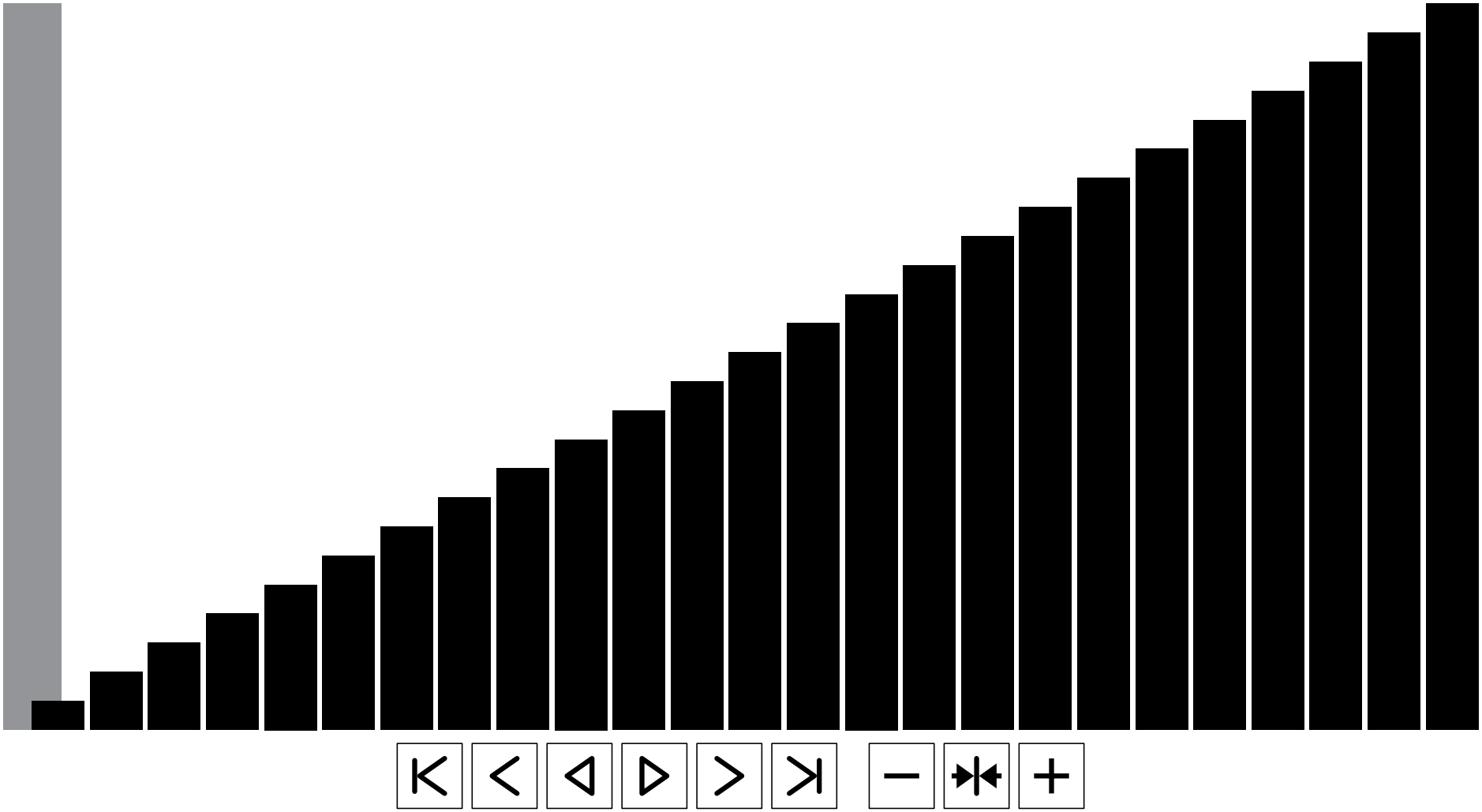
Insertion Sort: Random Input

$Outer : j = 1$ $Inner : i = 0$ $Ops : 0$



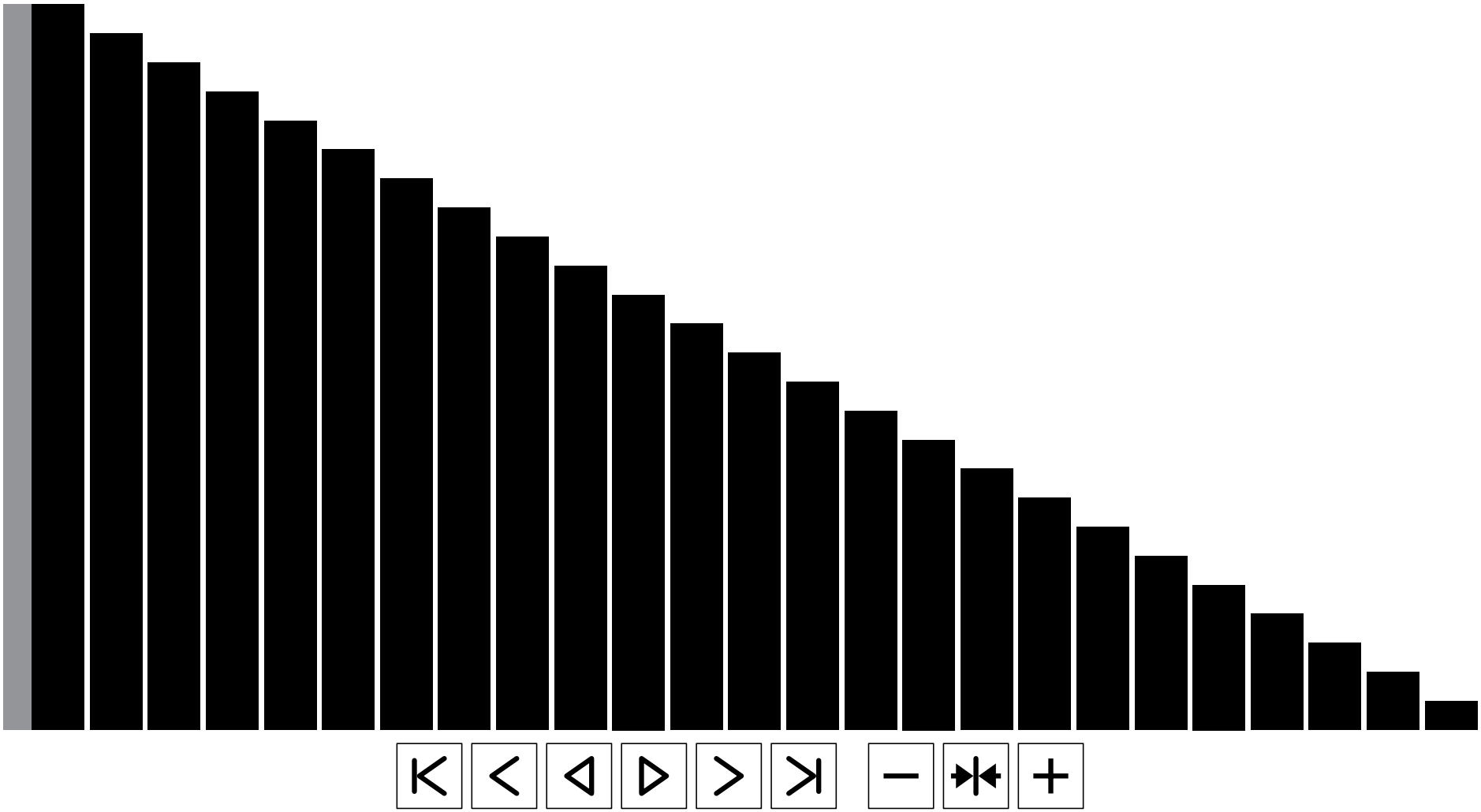
Insertion Sort: Sorted Input

$Outer : j = 1$ $Inner : i = 0$ $Ops : 0$



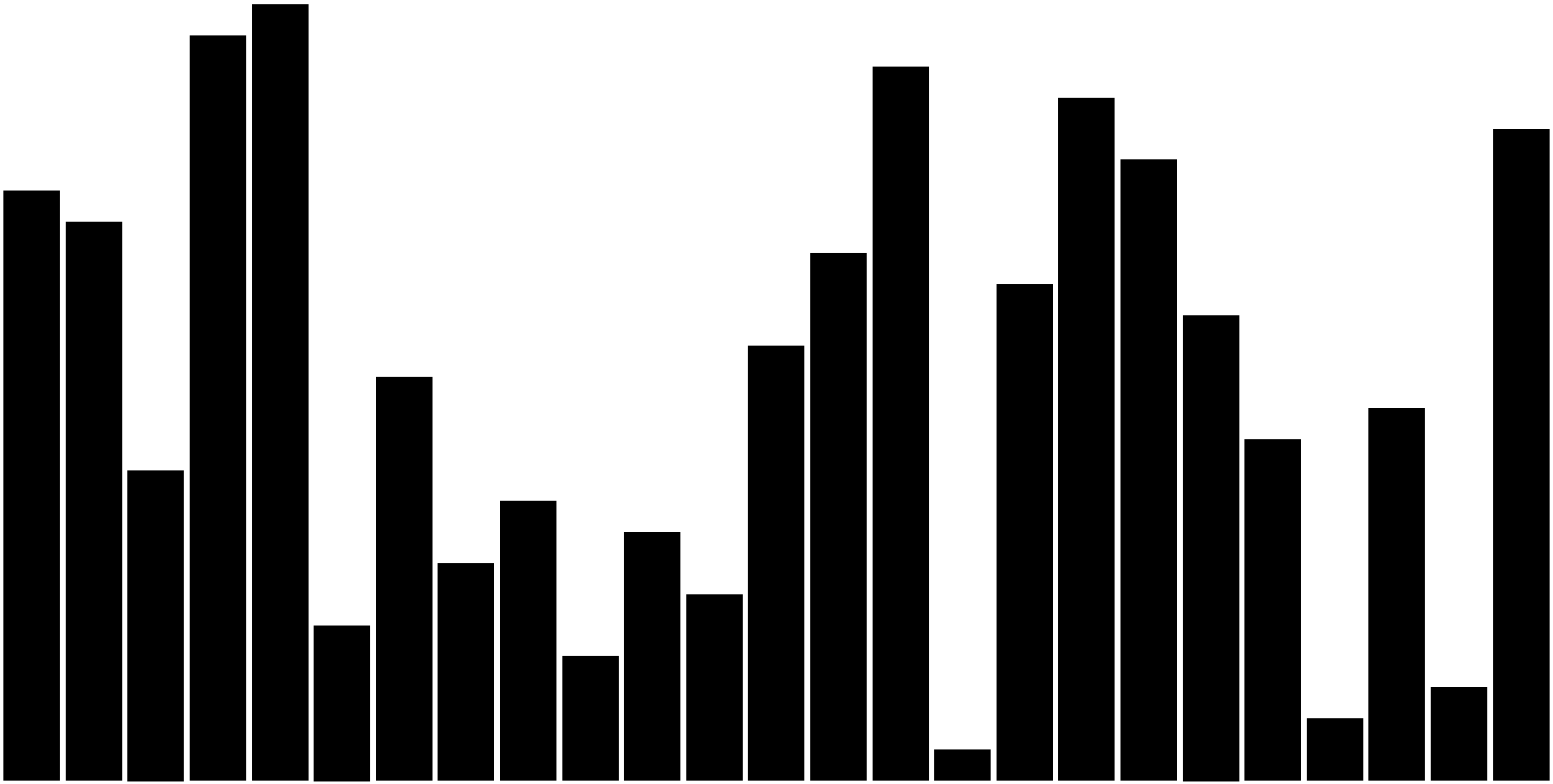
Insertion Sort: Reverse Sorted Input

$Outer : j = 1$ $Inner : i = 0$ $Ops : 0$



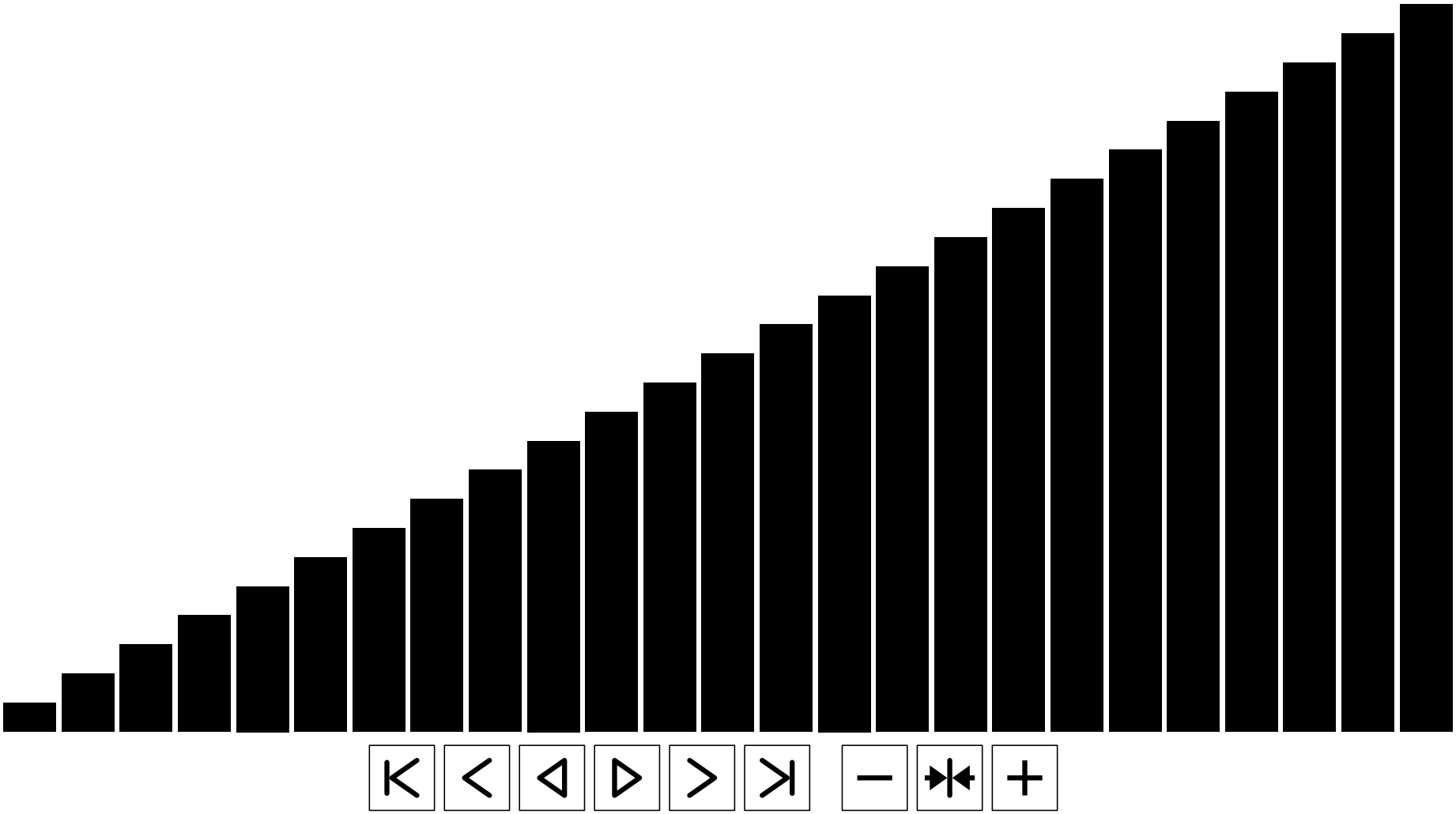
Selection Sort: Random Input

$Outer : j = -1$ $Inner : i = -1$ $Ops : 0$



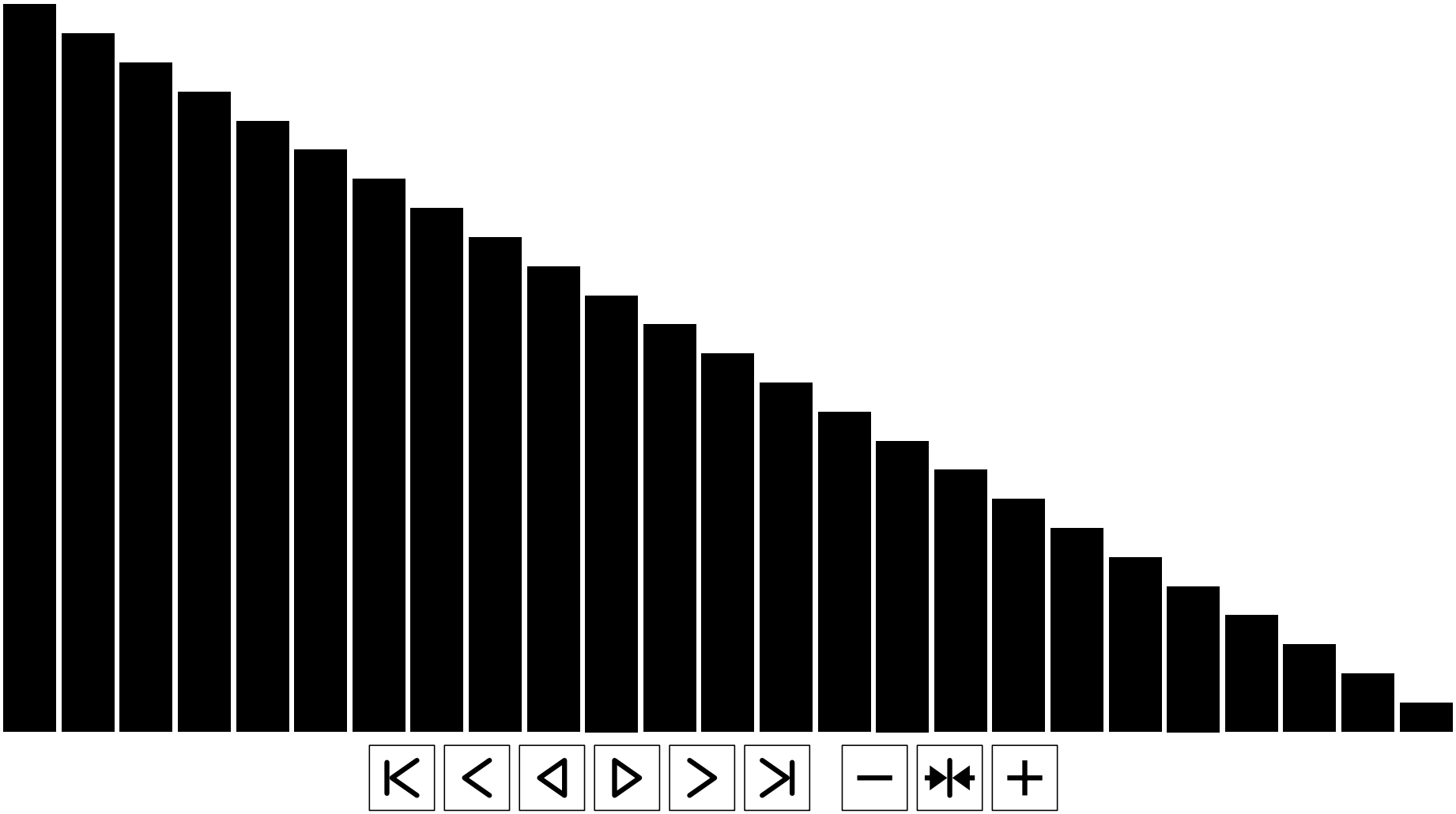
Selection Sort: Sorted Input

$Outer : j = -1$ $Inner : i = -1$ $Ops : 0$



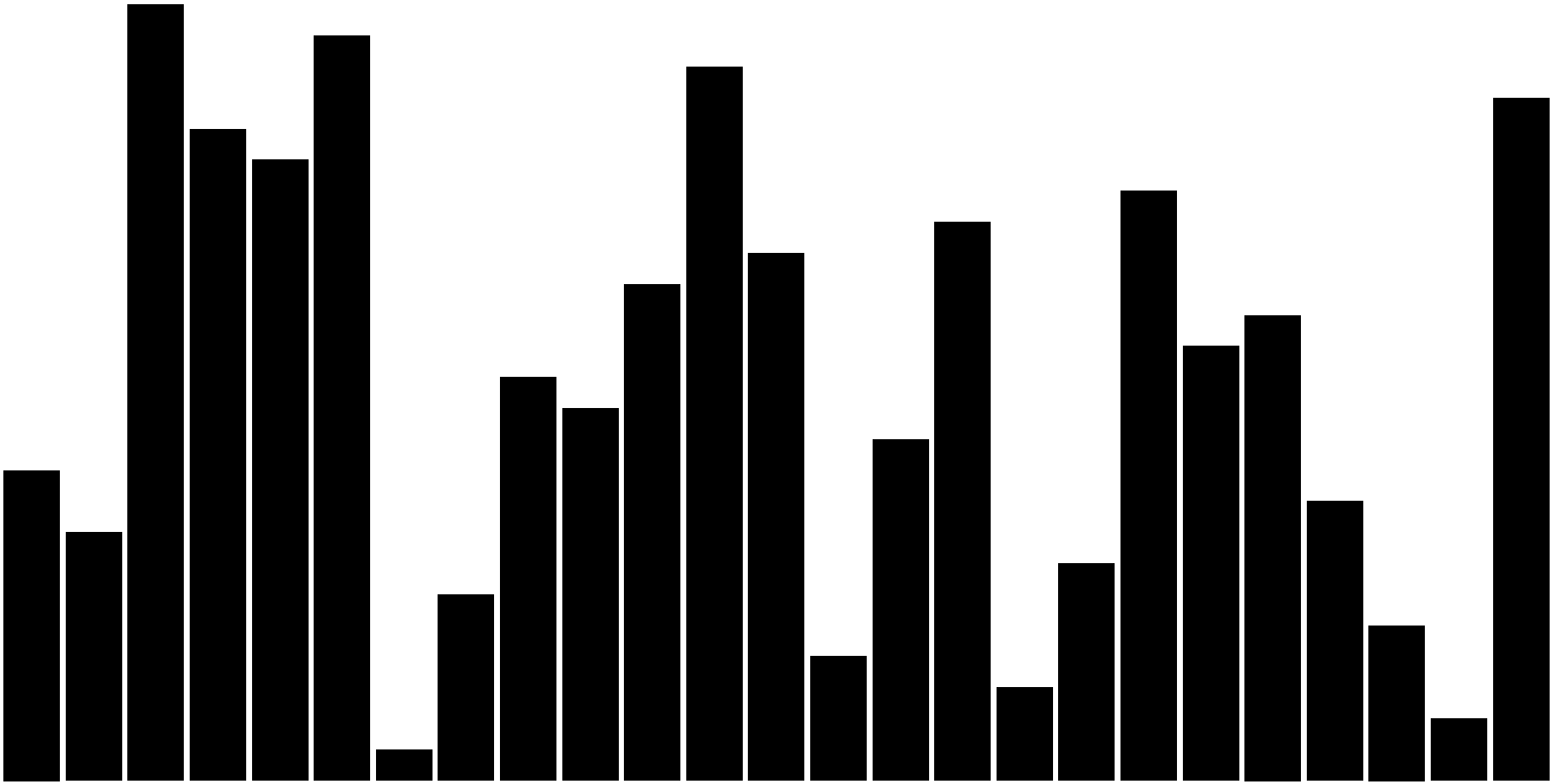
Selection Sort: Reverse Sorted Input

$Outer : j = -1$ $Inner : i = -1$ $Ops : 0$



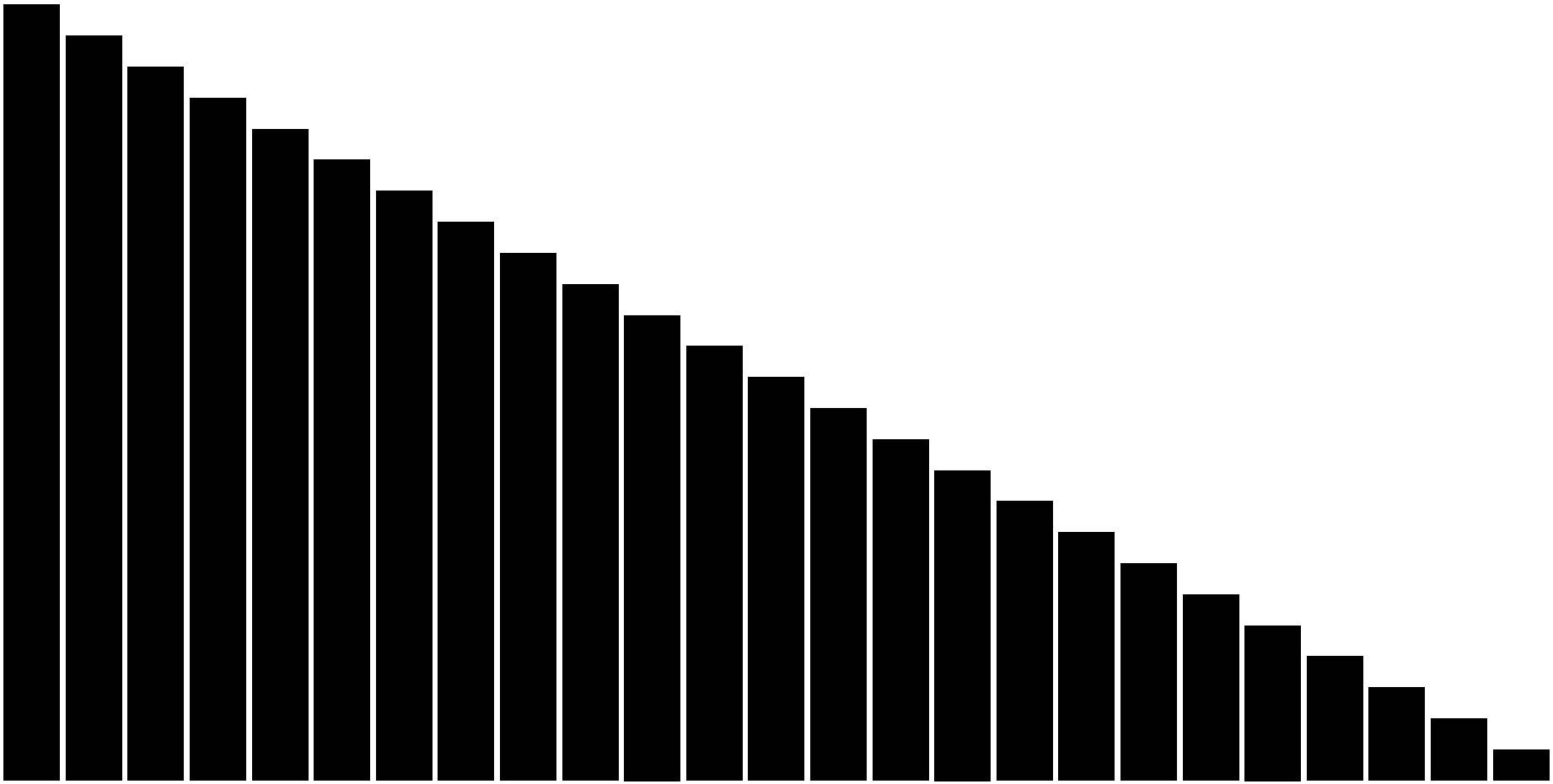
Bubble Sort: Random Input

$Outer : j = -1$ $Inner : i = -1$ $Ops : 0$

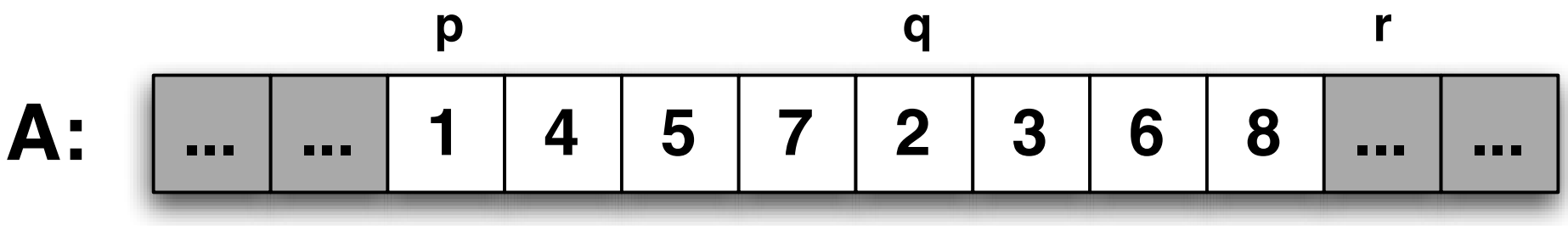


Bubble Sort: Reverse Sorted Input

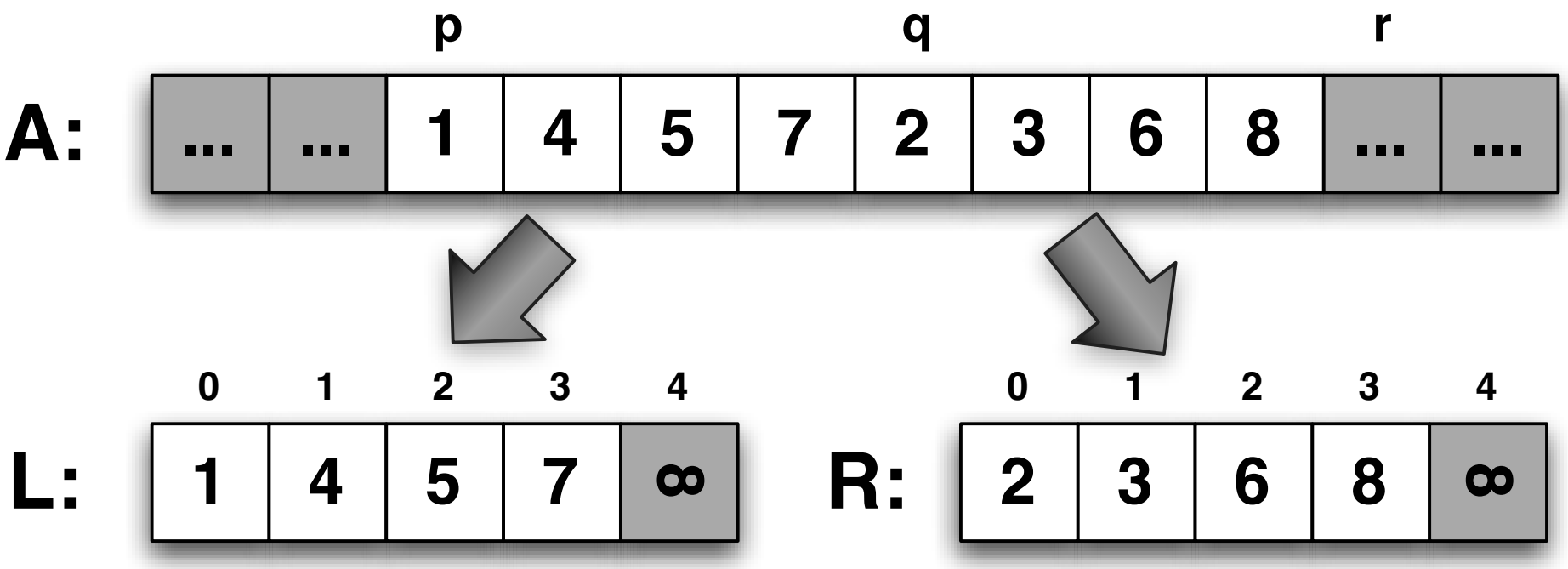
$Outer : j = -1$ $Inner : i = -1$ $Ops : 0$



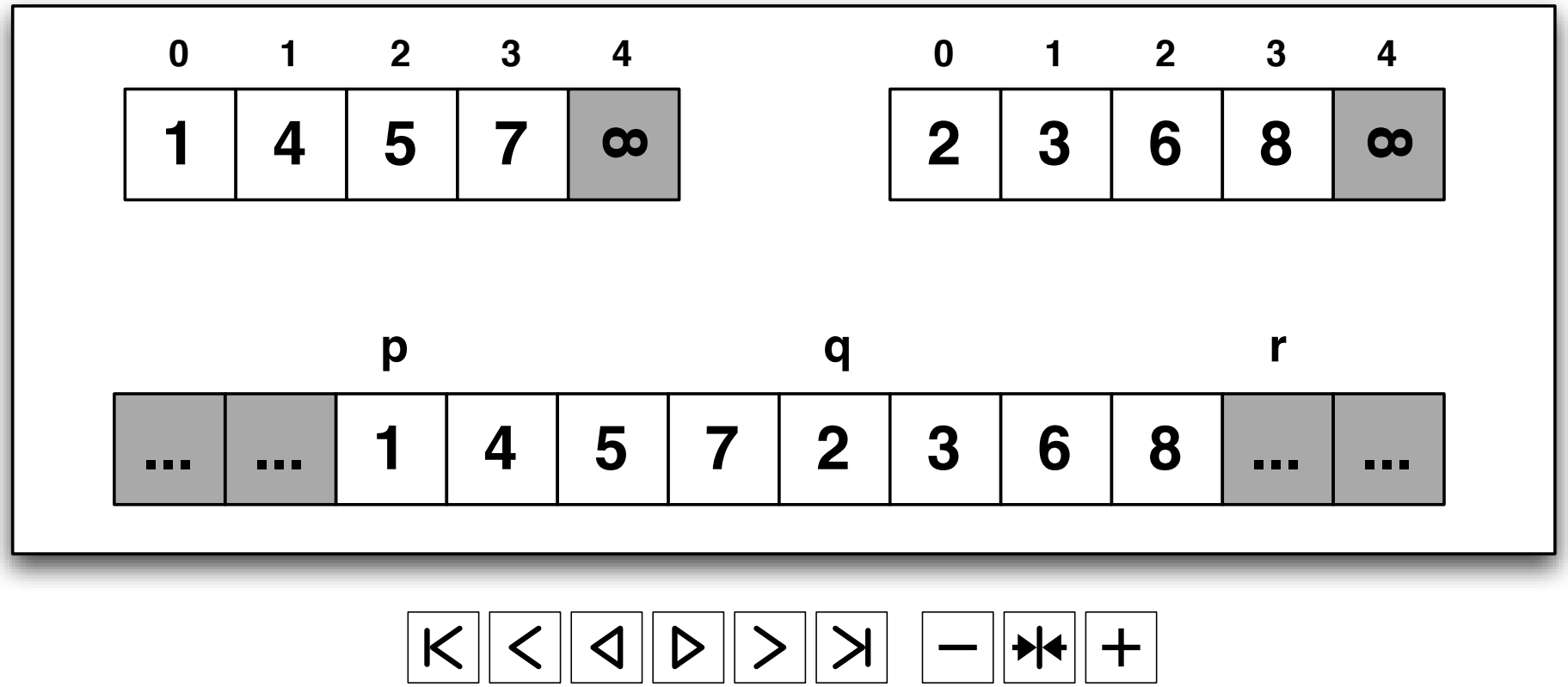
Merge Sort: Merge Step



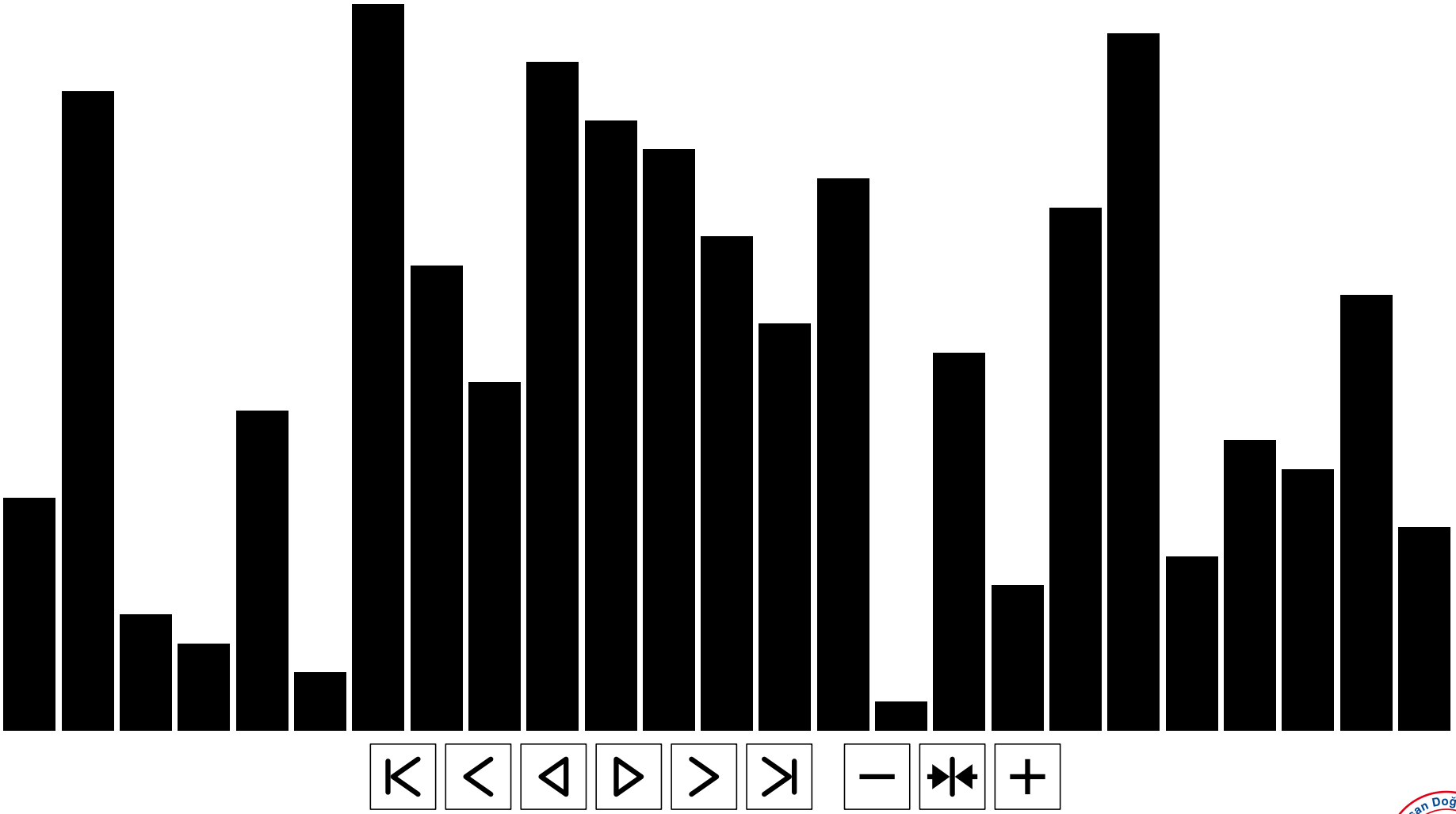
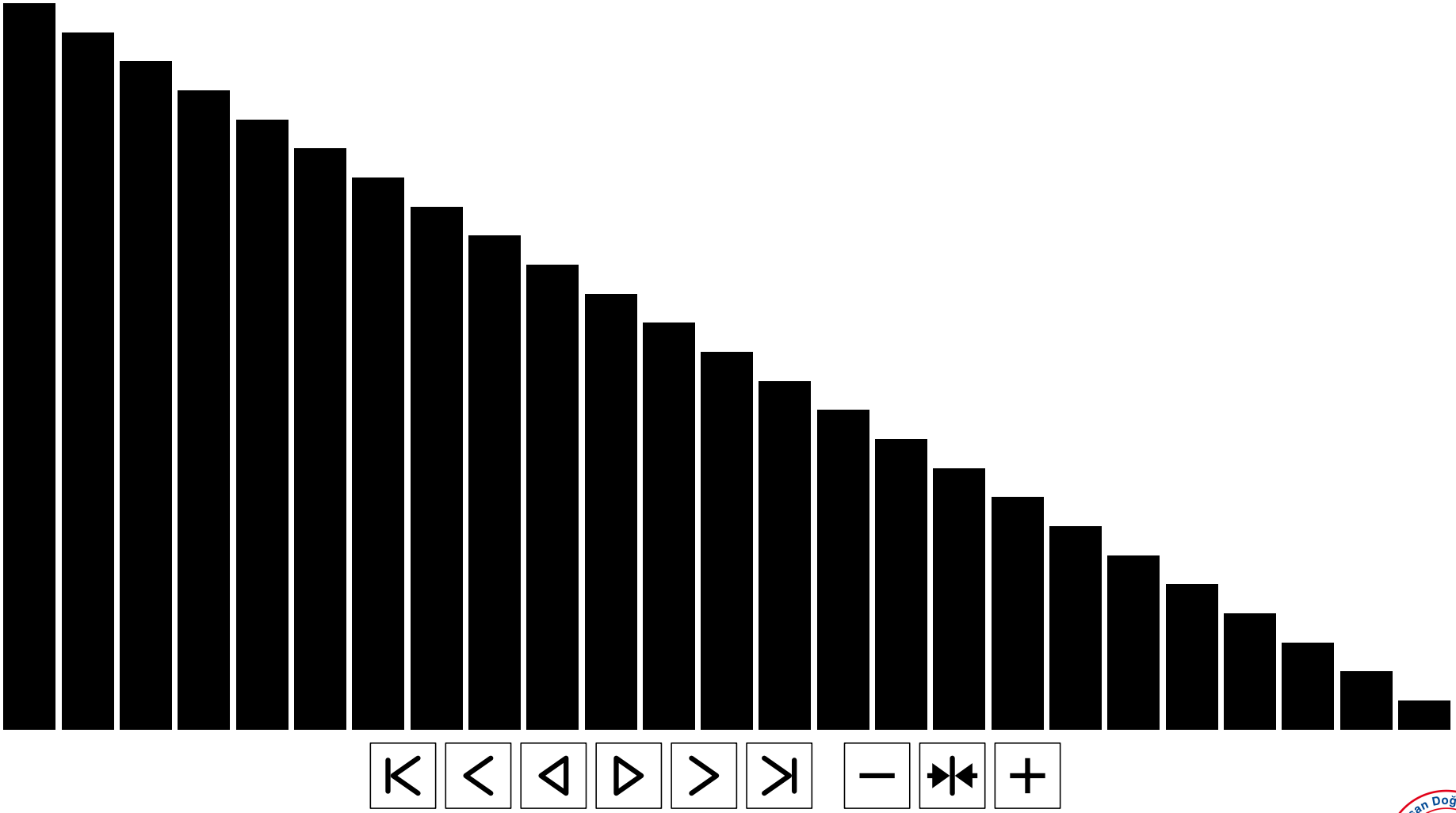
Merge Sort: Merge Step



Merge Sort: Merge Step



Merge Sort: Random Input



Merge Sort: Reverse Sorted Input