

array = [29, 15, 56, 77, 18]

n = 5

step 0

i = 0, minindex = 0, j = 1

15 < 29 $\xrightarrow{\text{YES}}$ minindex = 1, j = 2

56 < 15 $\xrightarrow{\text{NO}}$ j = 3

77 < 15 $\xrightarrow{\text{NO}}$ j = 4

18 < 15 $\xrightarrow{\text{NO}}$ j = 4

array[i] = array[minindex]

array[minindex] = array[i]

array = [15, 29, 56, 77, 18]

step 1

i = 1, minindex = 1, j = 2

56 < 29 $\xrightarrow{\text{NO}}$ j = 3

77 < 29 $\xrightarrow{\text{NO}}$ j = 4

18 < 29 $\xrightarrow{\text{YES}}$ minindex = 4, j = 5

array = [15, 18, 56, 77, 29]

step 2

i = 2, minindex = 2, j = 3

77 < 56 $\xrightarrow{\text{NO}}$ j = 4

29 < 56 $\xrightarrow{\text{YES}}$ minindex = 4, j = 5

array = [15, 18, 29, 77, 56]

step 3

i = 3, minindex = 3, j = 4

56 < 77 $\xrightarrow{\text{YES}}$ minindex = 4, j = 5

array = [15, 18, 29, 56, 77]

i = 4 \rightarrow i < n-1 $\xrightarrow{\text{NO}}$ SORTED ARRAY