

Rearrange array

with alternative positive and neg elements

Given array,

arr = [-5 -2 5 2 4 7 1 8 0 -8]

Step ①

Initialization,

out of place = -1

Step ③

index = 1

arr[index] is negative

↳ out of P = 1

Step ②

index = 0 \Rightarrow out of P = -1

Step ④

index = 2

out of P = 1

arr[out of P] = -2

Step ⑤

index = 3

out of P = 1

No issue move forward

Step ⑥:

index = 4

out of P = -1

arr[index] = 5

arr[out of P] < arr[index] ≥ 0

↳ right rotate b/w out of P & index

arr[index] > 0 at even position, this is

out of P. \downarrow

out of P = 4

Step ⑦:

index = 5

arr[index] is +ve, we need a -ve num acc to

-5	-2	5	2	4	7
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\downarrow

-5	5	-2	2	4	7	1	8	0	-8
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out of P = -1

Step ⑧:

index = 6 \Rightarrow carry fwd

Step ⑨:

index = 7 \Rightarrow carry fwd

Step ⑩:

index = 8 \Rightarrow carry fwd

Step ⑪: index = 9

arr[index] < 0 & arr[out of P] > 0 (\checkmark)

right rotate (out of P, index)

right rotate (4, 9)

Final result:

-5	5	-2	2	-8	4	7	1	8	0
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arr[index] >= 0 & arr[out of P] < 0
or
arr[index] < 0 & arr[out of P] > 0