## **Amy and Meat Problem**

**Solution Approach:**

In this problem statement you had to understand the approach to the question by looking at the Sample Input and Output. It is very necessary to understand the sample input and output when you are doing coding problems. Looking at the sample input

Input: 12 10 -1 -13 102 -75 84 1 -62 100

Output: -62 -75 -1 -13 102 10 84 1 12 100

The question specified that we had to segregate the good and the bad meat. The bad meat i.e. negative numbers should be in the start of the line and the good meat i.e. positive numbers should be at the end.

Hence by looking the input array, the negative numbers at the back were swapped with positive numbers on the start. Looking at this you should strike the 2-pointer approach. Start from left and right of the array and swap when positive number is encountered by left variable and negative number is encountered by right variable. Continue this process until left surpasses the right variable.

**C++ Solution**

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| #include <cmath>  #include <cstdio>  #include <vector>  #include <iostream>  #include <algorithm>  using namespace std;  int main() {  /\* Enter your code here. Read input from STDIN. Print output to STDOUT \*/  int size;  int left, right;  long long int data;  long long int arr[100000];  cin >> size;  for (right = 0; right < size;right++) {  cin >> arr[right];  }  left = 0;  right = right - 1;  while (right >= left) {  if (arr[left] > 0 && arr[right] < 0) {  data = arr[left];  arr[left] = arr[right];  arr[right] = data;  left++;  right--;  } else {  if (arr[left] < 0) {  left++;  }  if (arr[right] > 0) {  right--;  }  }  }  for (int i = 0; i < size; i++) {  cout << arr[i] << " ";  }  return 0;  } |

**Java Solution**

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| import java.io.\*;  import java.util.\*;  public class Solution {  public static void main(String[] args) {  Scanner sc = new Scanner(System.in);  int n = sc.nextInt();  int arr[] = new int[n];  int left = 0, right = n - 1;  for (int i = 0; i < n; i++) {  arr[i] = sc.nextInt();  }  while (left < right) {  if (arr[left] < 0 && arr[right] < 0) {  left++;  }  else if (arr[left] > 0 && arr[right] > 0) {  right--;  }  else if (arr[left] > 0 && arr[right] < 0) {  int temp = arr[left];  arr[left] = arr[right];  arr[right] = temp;  left++;  right--;  }  else {  left++;  right--;  }  }  for (int i = 0; i < n; i++) {  System.out.print(arr[i] + " ");  }  }  } |

**Python Solution**

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| n = int(input())  arr = list(map(int, input().split()))  i = 0  j = n-1  while i < j:  if arr[i] < 0:  i += 1  if arr[i] > 0:  if arr[j] < 0:  arr[i], arr[j] = arr[j], arr[i]  i += 1  j -= 1  print(\*arr, sep=' ') |