Prob 8.An array contains both positive and negative numbers in random order. Rearrange the array elements so that all negative numbers appear before all positive numbers.

Solve:

```
#include <stdio.h>
void rearrange(int arr[], int n) {
    int left = 0;
    int right = n - 1;

    while (left < right) {
        while (arr[left] < 0 && left < right) {
            left++;
        }
        while (arr[right] >= 0 && left < right) {
            right--;
        }
        if (left < right) {
            int temp = arr[left];
            arr[left] = arr[right];
            arr[right] = temp;
        }
    }
}

int main() {
    int arr[] = {12, -7, 9, -5, 6, -3, 0, -1, 4};
    int n = sizeof(arr) / sizeof(arr[0]);

    printf("Original array: \n");
    for (int i = 0; i < n; i++) {
```

```
        printf("%d ", arr[i]);
    }

    rearrange(arr, n);

    printf("\nRearranged array (negatives first): \n");
    for (int i = 0; i < n; i++) {
        printf("%d ", arr[i]);
    }

    return 0;
}
```