#include <stdio.h>

int count = 0; // Global variable to count the number of iterations

void divide(int arr[], int start, int end) {

if (start < end) {

int mid = (start + end) / 2;

divide(arr, start, mid);

divide(arr, mid + 1, end);

}

count++;

}

int main() {

int arr[] = {1, 2, 3, 4, 5, 6, 7, 8};

int n = sizeof(arr) / sizeof(arr[0]);

divide(arr, 0, n - 1);

printf("Number of iterations: %d\n", count);

return 0;

}