



```

1 function Fenwick(n) { fill(0);
2   return { query, update, rangeSum, tree }
3 }
4 function query(i) {
5   let sum = 0;
6   for (i++; i > 0; i = parent(i)) sum += a[i];
7   return sum;
8 }
9 function update(i, v) {
10  for (i++; i < n; i = next(i)) a[i] += v;
11 }
12 function rangeSum(l, r) {
13   return query(r) - query(l - 1);
14 }
15 function parent(x) {
16   return x - lowestOneBit(x);
17 }
18 function next(x) {
19   return x + lowestOneBit(x);
20 }
21 function lowestOneBit(x) {
22   return x & -x;
23 }
24 function tree() {
25   return a;
26 }
27 }
28
29 const countOperationsToEmptyArray = (a) => {
30   let n = a.length, fen = new Fenwick(n + 3), res = n, pre = 0;
31   a = a.map((x, i) => [x, i + 1]).sort((x, y) => x[0] - y[0] || x[1] - y[1]);
32   a.map(e => {
33     let [x, idx] = e;
34     res += idx - 1 - fen.rangeSum(0, idx - 1);
35     if (pre < idx) {
36       res -= pre - fen.rangeSum(0, pre);
37     } else {
38       res += (n - pre) - (fen.rangeSum(0, n) - fen.rangeSum(0, pre));
39     }
40     pre = idx;
41     fen.update(idx, 1);
42   })
43   return res;
44 };

```

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