

10. Majority elements

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#include <stdio.h>
```

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int majority(int a[], int n) {
    int c = 0, cnt = 0;
    for (int i = 0; i < n; i++) {
        if (cnt == 0) {
            c = a[i];
            cnt = 1;
        } else if (a[i] == c) {
            cnt++;
        } else {
            cnt--;
        }
    }

    cnt = 0;
    for (int i = 0; i < n; i++) {
        if (a[i] == c) cnt++;
    }

    return cnt > n / 2 ? c : -1;
}

int main() {
    int a[] = {2, 2, 1, 1, 1, 2, 2};
    printf("%d", majority(a, sizeof(a) / sizeof(a[0])));
}
```