

## 10. majority elements:

```
#include <stdio.h>
```

```
int main() {
```

```
    int n;
```

```
    printf("Enter the number of elements: ");
```

```
    scanf("%d", &n);
```

```
    int arr[n];
```

```
    printf("Enter %d integers:\n", n);
```

```
    for (int i = 0; i < n; i++) {
```

```
        scanf("%d", &arr[i]);
```

```
    }
```

```
    int candidate = arr[0], count = 1;
```

```
    for (int i = 1; i < n; i++) {
```

```
        if (arr[i] == candidate) {
```

```
            count++;
```

```
        } else {
```

```
            count--;
```

```
            if (count == 0) {
```

```
                candidate = arr[i];
```

```
                count = 1;
```

```
            }
```

```
        }
```

```
    }
```

```
    count = 0;
```

```
for (int i = 0; i < n; i++) {  
    if (arr[i] == candidate) {  
        count++;  
    }  
}  
  
if (count > n / 2) {  
    printf("Majority element: %d\n", candidate);  
} else {  
    printf("Majority element: -1\n");  
}  
  
return 0;  
}
```