

## Histogram

Given an array of  $N > 0$  elements, count the frequency of each value found in the array.  
Print to `stdout` each unique value in the array and the number of times the value appeared in the array.  
Print each value and its frequency in the same order as the first occurrence of the value in the array.

Write a function

```
int histogram(int a[], int len)
```

where

`a[]` is the array of values

`len` is the number of elements in `a[]`

and returns 1 and prints values and frequencies to `stdout` if `a[]` is non-NULL and `len > 0`,  
otherwise returns 0.

File you must submit: `soln_func.cc`

### Examples:

`a[] = {7, -11, 7}, len=3`

returns: 1

output:

```
7 occurs 2 time(s).  
-11 occurs 1 time(s).
```

`a[] = {5}, len=1`

returns: 1

output:

```
5 occurs 1 time(s).
```

`a[] = {12, -4, 19, 5, 19, 6, 5, -4, -4, 7}, len=10`

returns: 1

output:

```
12 occurs 1 time(s).  
-4 occurs 3 time(s).  
19 occurs 2 time(s).  
5 occurs 2 time(s).  
6 occurs 1 time(s).  
7 occurs 1 time(s).
```

`a[] = NULL, len=3`

`a[] = {7, -11, 7}, len=0`

All return 0, no output

*Explanation: `a[]` is non-NULL and `len > 0` not satisfied in each.*