Problem:1

Given an array of size **N.** The task is to find the maximum and the minimum element of the array using the minimum number of comparisons.

Ans:

Code:

```
#include <stdio.h>
void find_min_max(int arr[], int size, int *min, int *max) {
   if (size <= 0) return;

   *min = *max = arr[0];
   for (int i = 1; i < size; i++) {
      if (arr[i] < *min) *min = arr[i];
      if (arr[i] > *max) *max = arr[i];
   }
}
int main() {
   int array[] = {3, 1, 4, 1, 5, 9, 2};
   int size = sizeof(array) / sizeof(array[0]);
   int min, max;
 find_min_max(array, size, &min, &max);
 printf("Minimum: %d\n", min);
   printf("Maximum: %d\n", max);

   return 0;
}
```