//Maximum and minimum of an array using minimum number of comparisons.

/*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.

Examples:
Input: arr[] = {3, 5, 4, 1, 9}
Output: Minimum element is: 1
Maximum element is: 9

Input: arr[] = {22, 14, 8, 17, 35, 3}
Output: Minimum element is: 3
Maximum element is: 35*/

Code:

```
#include <stdio.h>

int main() {
    int n;


    printf("Enter the number of elements in the array: ");
    scanf("%d", &n);


    int arr[n];


    printf("Enter the elements of the array: ");
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }


    int min = arr[0];
    int max = arr[0];


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

```
        if (arr[i] < min) {
            min = arr[i];
        }
        if (arr[i] > max) {
            max = arr[i];
        }
    }


    printf("Minimum element is %d\n", min);
    printf("Maximum element is %d\n", max);

    return 0;
}
```