

## Input: Ascending Order

```
1 //Ascending Order
2 #include <xc.h>
3 #include <stdlib.h>
4 #include <pic18f4550.h>
5
6 void main(void) {
7     int i, j, t;
8     int a[] = {0x01, 0x03, 0x06, 0x04, 0x07, 0x02, 0x05, 0x08};
9
10
11     for(i = 0; i < 7; i++) {
12         for(j = 0; j < 7 - i; j++) {
13             if(a[j] > a[j+1]) {
14                 t = a[j];
15                 a[j] = a[j+1];
16                 a[j+1] = t;
17             }
18         }
19     }
20
21     TRISD = 0;
22
23
24     for(i = 0; i < 8; i++) {
25         PORTD = a[i];
26
27         for(int n = 0; n < 1000; n++) {
28             for(int k = 0; k < 100; k++) {
29
30             }
31         }
32     }
33 }
34
```

## Input:Descending Order

```
//Descending Order
#include <xc.h>
#include <stdlib.h>
#include <pic18f4550.h>

void main(void) {
    int i, j, t;
    int a[] = {0x01, 0x03, 0x06, 0x04, 0x07, 0x02, 0x05, 0x08};

    for(i = 0; i < 7; i++) {
        for(j = 0; j < 7 - i; j++) {
            if(a[j] < a[j+1]) {
                t = a[j];
                a[j] = a[j+1];
                a[j+1] = t;
            }
        }
    }

    TRISD = 0;

    for(i = 0; i < 8; i++) {
        PORTD = a[i];
        for(int n = 0; n < 1000; n++) {
            for(int k = 0; k < 100; k++) {
            }
        }
    }
}
```