Q1. Write a program to find the difference between the largest and smallest values in an array of integers.

```c
#include <stdio.h>
int main(){
    int arr[] = { 50, 20, 70, 40, 10 };
    int i = 0;
    int j = 0;
    int diff = 0;
    diff = arr[1] - arr[0];
    for (i = 0; i < 5; i++) {
        for (j = i + 1; j < 5; j++) {
            if (arr[j] - arr[i] > diff)
                diff = arr[j] - arr[i];
        }
    }
    printf("Difference is: %d\n", diff);
    return 0;
}
```

```
PS C:\Users\Galaxy\os module> gcc Q1.c
PS C:\Users\Galaxy\os module> ./a.exe
Difference is: 50
```

Q2Write a C program to create a parent process which terminates after the child finishes printing the contents of array.

```c
#include <stdio.h>
#include <sys/wait.h>
#include <stdlib.h>
#include <unistd.h>

void main()
{
        pid_t id;
        id = fork();
        if(id>0)
        {
                printf("Parent Started Executing \n");
                printf("Waiting for child to finish \n");
                wait(NULL);
                printf("Parent Exiting \n");
        }
        else
        {

                printf("Child Executing  \n ");
                sleep(5);
                printf("Child Finished \n");
                exit(0);
        }
}
```


(kali㉿kali)-[~/Desktop]
$ nano pro_child.c
(kali㉿kali)-[~/Desktop]
$ gcc pro_child.c -o pro_child
(kali㉿kali)-[~/Desktop]
$ ./pro_child
Parent Started Executing
Waiting for child to finish
Child Executing
Child Finished
Parent Exiting