Họ và tên: Nguyễn Trọng Đạt

MSSV: 52100176

Lớp: 21050301

LAB 3.2:

Bài 1:

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

int main(int argc, char ** argv)
{

    pid_t pid;
    pid = fork();
    int s = 0, sumUoc = 0;
    int n = atoi(argv[1]);
    if(pid > 0 && n > 0)
    {
        int i;
        for(i = 1; i <= n; i++)
        {
            s += i;
        }
        printf("Sum = %d\n", s);
        wait(NULL);
    }
    else if(pid == 0 && n > 0)
    {
        int j;
        for(j = 1; j <= n; j++)
        {
            if(n % j == 0)
            {
                sumUoc += j;
```

```c
        pid = fork();
        int s = 0, sumUoc = 0;
        int n = atoi(argv[1]);
        if(pid > 0 && n > 0)
        {
                int i;
                for(i = 1; i <= n; i++)
                {
                        s += i;
                }
                printf("Sum = %d\n", s);
                wait(NULL);
        }
        else if(pid == 0 && n > 0)
        {
                int j;
                for(j = 1; j <= n; j++)
                {
                        if(n % j == 0)
                        {
                                sumUoc += j;
                        }
                }
                printf("Sum So Uoc = %d\n", sumUoc);
        }
        return 0;

}
```

```
trongdat1108@ubuntu: ~/lab3
trongdat1108@ubuntu:~/lab3$ gcc -c bai1.c
bai1.c: In function 'main':
bai1.c:21:3: warning: implicit declaration of function 'wait' [-Wimplicit-functi
on-declaration]
   wait(NULL);
   ^
trongdat1108@ubuntu:~/lab3$ gcc -o bai1.out bai1.o
trongdat1108@ubuntu:~/lab3$ ./bai1.out 12
Sum = 78
Sum So Uoc = 28
trongdat1108@ubuntu:~/lab3$
```

Bài 2:

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

int main(int argc, char ** argv)
{
        pid_t pid;
        pid = fork();
        int n = atoi(argv[1]);

        if(pid > 0 && n > 0)
        {
                wait(NULL);
        }
        else if (pid == 0 && n > 0)
        {
                printf("%d ", n);
                while(n > 0)
                {
                        if(n != 1)
                        {
                                if(n % 2 == 0)
                                {
                                        n /= 2;
                                        printf("%d ", n);
                                }
                                else if(n % 2 == 1)
```

```c
        }
        else if (pid == 0 && n > 0)
        {
                printf("%d ", n);
                while(n > 0)
                {
                        if(n != 1)
                        {
                                if(n % 2 == 0)
                                {
                                        n /= 2;
                                        printf("%d ", n);
                                }
                                else if(n % 2 == 1)
                                {
                                        n = 3*n + 1;
                                        printf("%d ", n);
                                }
                        }
                        else
                        {
                                break;
                        }
                }
        }
        printf("\n");
        return 0;
}
```

```
trongdat1108@ubuntu:~/lab3$ gcc -c bai2.c
bai2.c:1:19: fatal error: atdio.h: No such file or directory
compilation terminated.
trongdat1108@ubuntu:~/lab3$ gcc -c bai2.c
bai2.c:1:19: fatal error: atdio.h: No such file or directory
compilation terminated.
trongdat1108@ubuntu:~/lab3$ gcc -c bai2.c
bai2.c: In function 'main':
bai2.c:14:3: warning: implicit declaration of function 'wait' [-Wimplicit-functi
on-declaration]
   wait(NULL);
   ^
trongdat1108@ubuntu:~/lab3$ gcc -o bai2.out bai2.o
trongdat1108@ubuntu:~/lab3$ ./bai2.out 40
40 20 10 5 16 8 4 2 1

trongdat1108@ubuntu:~/lab3$ ./bai2.out 35
35 106 53 160 80 40 20 10 5 16 8 4 2 1

trongdat1108@ubuntu:~/lab3$ 
```

LAB 3.4:

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

int main()
{
        pid_t pid;
        pid = fork();

        if(pid < 0)
        {
                printf("Loi, khong tao duoc tien trinh con");
        }
        else if(pid == 0)
        {
                printf("Bat dau tien trinh con\n");
                printf("Thoat tien trinh con\n");
                exit(0);
        }
        else
        {
                printf("Bat dau tien trinh cha\n");
                sleep(10);
                printf("Ket thuc tien trinh cha\n");
                exit(0);
        }
}
```

```
trongdat1108@ubuntu: ~/lab3.3
trongdat1108@ubuntu:~/lab3.3$ gcc -c bai3.4.c
trongdat1108@ubuntu:~/lab3.3$ gcc -o bai3.4.out bai3.4.o
trongdat1108@ubuntu:~/lab3.3$ ./bai3.4.out
Bat dau tien trinh cha
Bat dau tien trinh con
Thoat tien trinh con
^Z
[2]+  Stopped                 ./bai3.4.out
trongdat1108@ubuntu:~/lab3.3$
```