Assignment 3

a)

main.c

Run

Output

```c
#include <stdio.h>
int main()
{
    int i = 2, j;
    printf("i is %d \n", i);
    switch (i) {
    case 2: i = i * i;
    case 4: i = i * i;
    default: i = i * i;
    break;
    case 16: i = i * i;
}
j = i;
    printf("j is %d \n", j);
    return 0;
}
```

```
/tmp/RUzIFjB9bA.o
i is 2
j is 256
```

main.c

Run

Output

```c
#include <stdio.h>
int main()
{
    int i = 1, j;
    printf("i is %d \n", i);
    switch (i) {
    case 2: i = i * i;
    case 4: i = i * i;
    default: i = i * i;
    break;
    case 16: i = i * i;
}
j = i;
    printf("j is %d \n", j);
    return 0;
}
```

```
/tmp/Jy30dwktYC.o
i is 1
j is 1
```

Samuela Abigail
71762108039

main.c

Run

Output

```c
#include <stdio.h>
int main()
{
    int i = 16, j;
    printf("i is %d \n", i);
    switch (i) {
    case 2: i = i * i;
    case 4: i = i * i;
    default: i = i * i;
    break;
    case 16: i = i * i;
}
j = i;
    printf("j is %d \n", j);
    return 0;
}
```

```
/tmp/RUzIFjB9bA.o
i is 16
j is 256
```

main.c

Run

Output

```c
#include <stdio.h>
int main()
{
    int i = 4, j;
    printf("i is %d \n", i);
    switch (i) {
    case 2: i = i * i;
    case 4: i = i * i;
    default: i = i * i;
    break;
    case 16: i = i * i;
}
j = i;
    printf("j is %d \n", j);
    return 0;
}
```

```
/tmp/RUzIFjB9bA.o
i is 4
j is 256
```

Samuela Abigail
71762108039

b)

main.c

Run

Output

```c
#include <stdio.h>
#define m (5+5)
const int n = 5+5;
void main() {
int a = 0, b = 0;
a = m * m;
b = n * n;
printf("%d %d\n", a, b);
}
```

```
/tmp/RUzIFjB9bA.o
100 100
```

c)

main.c

Run

Output

```c
#include <stdio.h>
int main()
{
    int i = 1, j = 1, k = 1, count = 0;
    while (i < 2) {
        for(; j < 4; j += k) do {
        ++count; k += i;
    }
    while (k < 8);
    i += j;
    }
    printf("Loop Indices: %d %d %d\n", i, j, k);
    printf("Number of iterations = %d\n",count);
    return 0;
}
```

```
/tmp/RUzIFjB9bA.o
Loop Indices: 10 9 8
Number of iterations = 7
```

Samuela Abigail
71762108039

d)

main.c

Run

```
13    printf("Enter set of %d seed values: \n", k);
14
15    for (n=2; n<k+2; n++)
16    {
17      scanf("%d", &fib[n]);
18    }
19    printf("The fibonacci series is 0");
20
21    for (n=1; n<k+2; n++)
22    {
23      printf(", %d",fib[n]);
24    }
25
26    k=k+2; //Since fibonacci starts with predefined values 0 and
          1
27    for (n=k; n<=k+N-1; n++)
28    {
29      fib[n]= fib[n-1] + fib[n-k];
```

Output

Clear

```
/tmp/luJyYy4Ekq.o
Enter the number of terms to generate in the fibonacci series: 11
Enter the value of k: 3
Enter set of 3 seed values:
2
3
4
The fibonacci series is 0, 1, 2, 3, 4, 4, 5, 7, 10, 14, 18, 23, 30, 40,
    54, 72
```

Samuela Abigail
71762108039