

## Logic Building Assignment : 5

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1. Write a program which accept number from user and print that number of \$ & \* on screen.

```
#include <stdio.h>
```

```
void pattern (int iNo)
```

```
{
```

```
    int iCnt = 0;
```

```
    if (iNo < 0)
```

```
    {
```

```
        iNo = -iNo;
```

```
    }
```

```
    for (iCnt = 1; iCnt <= iNo; iCnt++)
```

```
    {
```

```
        printf("$\\t*\\t");
```

```
    }
```

```
int main()
```

```
{
```

```
    int iValue = 0;
```

```
    printf("Enter number");
```

```
    scanf("%d", &iValue);
```

```
    Pattern(iValue);
```

```
    return 0;
```

```
}
```

Time complexity  $O(N)$

2. Write a program which accepts number from user and print numbers till that number.

```
#include <stdio.h>
```

```
void display (int iNo)
```

```
{
```

```
    int iCnt = 1;
```

```
    while (iCnt <= iNo)
```

```
    {
```

```
        printf ("%d\t", iCnt);
```

```
        iCnt++;
```

```
    }
```

```
}
```

```
int main()
```

```
{
```

```
    int iValue = 0;
```

```
    printf ("Enter number ");
```

```
    scanf ("%d", &iValue);
```

```
    display (iValue);
```

```
    return 0;
```

```
}
```

Time complexity  $O(N)$

3. Write a program which accept number from user & print its numbers line.

```
#include <stdio.h>

void Display (int iNo)
{
    int iCnt = 0;
    if (iNo < 0)
    {
        iNo = -iNo;
    }

    for (iCnt = iNo; iCnt > 0; iCnt--)
    {
        printf ("%d\t", -iCnt);
    }

    for (iCnt = 0; iCnt <= iNo; iCnt++)
    {
        printf ("%d\t", iCnt);
    }
}

int main()
{
    int iValue = 0;
    printf ("Enter number");
    scanf ("%d", &iValue);
    Display (iValue);
    return 0;
}
```

time complexity :  $O(N)$ .

4. Write a program which accepts  $N$  from user and print all odd numbers up to  $N$ .

```
#include <stdio.h>

void OddDisplay(int iNo)
{
    int iCnt = 0;
    for (iCnt = 1; iCnt <= iNo; iCnt++)
    {
        if (iCnt % 2 != 0)
        {
            printf("%d", iCnt);
        }
    }
}

int main()
{
    int iValue = 0;
    printf("Enter number ");
    scanf("%d", &iValue);

    OddDisplay(iValue);

    return 0;
}
```

Time complexity  $O(N-1)$

5. Write a program which accept  $N$  & print first 5 multiples of  $N$ .

```
#include <stdio.h>
```

```
void multiplyDisplay (int iNo)
```

```
{
```

```
    int iCnt = 0;
```

```
    int iMultiple = 0;
```

```
    for (iCnt = 1; iCnt <= iNo + 1; iCnt++)
```

```
    {
```

```
        iMultiple = iMultiple + iNo;
```

```
        printf ("%d", iMultiple);
```

```
    }
```

```
}
```

```
int main ()
```

```
{
```

```
    int iValue = 0;
```

```
    printf ("Enter number");
```

```
    scanf ("%d", &iValue);
```

```
    multiplyDisplay (iValue);
```

```
    return 0;
```

```
}
```

Time complexity  $O(N+1)$