

Logic Building Assignment : 4

Create separate visual Studio project for each problem statement separately.
Calculate Time Complexity of each program.

1. Write a program which accept number from user and display its multiplication of factors.

Input : 12
Output : 144 (1 * 2 * 3 * 4 * 6)

Input : 13
Output : 1 (1)

Input : 10
Output : 10 (1 * 2 * 5)

```
#include<stdio.h>

int MultFact(int iNo)
{
    // Logic
}

int main()
{
    int iValue = 0;
    int iRet = 0;

    printf("Enter number");
    scanf("%d",&iValue);

    iRet = MultFact(iValue);

    printf("%d",iRet);

    return 0;
}
```

2. Write a program which accept number from user and display its factors in decreasing order.

Input : 12
Output : 6 4 3 2 1

Input : 13

Output : 1

Input : 10

Output : 5 2 1

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

```
void FactRev(int iNo)
```

```
{
```

```
    // Logic
```

```
}
```

```
int main()
```

```
{
```

```
    int iValue = 0;
```

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

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

```
    FactRev(iValue);
```

```
    return 0;
```

```
}
```

3. Write a program which accept number from user and display all its non factors.

Input : 12

Output : 5 7 8 9 10 11

Input : 13

Output : 2 3 4 5 6 7 8 9 10 11 12

Input : 10

Output : 3 4 6 7 8 9

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

```
void NonFact(int iNo)
```

```
{
```

```
    // Logic
```

```
}
```

```
int main()
{
    int iValue = 0;

    printf("Enter number");
    scanf("%d",&iValue);

    NonFact(iValue);

    return 0;
}
```

4. Write a program which accept number from user and return summation of all its non factors.

Input : 12
Output : 50

Input : 10
Output : 37

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

```
int SumNonFact(int iNo)
{
```

```
    // Logic
```

```
}
```

```
int main()
{
```

```
    int iValue = 0;
    int iRet = 0;
```

```
    printf("Enter number");
    scanf("%d",&iValue);
```

```
    iRet = SumNonFact(iValue);
```

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

```
    return 0;
```

```
}
```

5. Write a program which accept number from user and return difference between summation of all its factors and non factors.

Input : 12
Output : -34 (16 - 50)

Input : 10
Output : -29 (8 - 37)

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

```
int FactDiff(int iNo)  
{
```

```
    // Logic
```

```
}
```

```
int main()  
{
```

```
    int iValue = 0;  
    int iRet = 0;
```

```
    printf("Enter number");  
    scanf("%d",&iValue);
```

```
    iRet = FactDiff(iValue);
```

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

```
    return 0;
```

```
}
```