

Assignment -6

1. Write a program to calculate sum of first N natural Numbers.

Method 1

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

```
int main()
```

```
{
```

```
int x, s, y;
```

```
for (x=0, s=0; x<=s
```

```
printf("%d",
```

```
printf("Enter N");
```

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

```
for (y=0, y=0; x<=s; y++)
```

```
{
```

```
y = y + x;
```

```
}
```

```
printf("Sum of Number is", y);
```

```
return 0;
```

X	S	y
0	3	0
1	3	↓
2	3	3
3	3	6
4		10

③ Write a program to calculate sum of first N odd Natural Number.

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

```
int main()
```

```
{
```

```
    int x, s, n;
```

```
    printf("Enter a Number");
```

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

```
    for(x=1, n=0; x<=s; x+=2)
```

```
    {
```

```
        n = n + x;
```

```
    }
```

```
    printf("Sum of odd Natural Number is %d", n);
```

```
    return 0;
```

```
}
```

④ Write a program to calculate sum of square of first N Natural Number.

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

```
int main()
```

```
{
```

```
    int x, s, n;
```

```
    printf("Enter a Number");
```

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

```
    for(x=1, n=0; x<=s; x++)
```

```
    {
```

```
        n = (x*x) + n;
```

```
    }
```

```
    printf("Sum of square %d", n);
```

```
    return 0;
```

```
}
```

2) Write a program to calculate sum of even first N even Natural No.

```
#include <stdio.h>
int main()
```

```
{
    int x, s, n;
    printf("Enter a Even No.");
    scanf("%d", &n);
```

```
for (x = 2, n > 0; x <= n; x += 2)
```

```
{
    n = n + x;
```

```
printf("The Sum is %d", n);
```

```
return 0;
```

```
}
```

⑤ Write a program to print cubes of first N Natural Number

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

```
int main()
```

```
{
```

```
int x, s, y;
```

```
printf("Enter a Number");
```

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

```
for (x=0, y=0; x<=s; x++)
```

```
{
```

```
y = (x*x*x) + y;
```

```
}
```

```
printf("sum of cubes %.d", y);
```

```
return 0;
```

```
}
```

⑥ Write a program to print factorial of Number.

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

```
int main()
```

```
{
```

```
int x, s, y;
```

```
printf("Enter a Number");
```

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

```
for (x=s, y=1; x>=1; x--)
```

```
{
```

```
y = y * x;
```

```
}
```

```
printf("factorial of Number is %.d", y);
```

```
return 0;
```

```
}
```

x = 5
y = 1

y = y * x

③

7) Write a program to Calculate Number of digit in a given Number.

```
#include <stdio.h>
int main()
```

```
{
```

```
int c=0, n;
```

```
printf("Enter a Number ");
```

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

```
for(c=0; n!=0; c++);
```

```
{
```

```
n = n/10;
```

```
}
```

```
printf("No of digit %d", c);
```

```
return 0;
```

```
}
```

8) Write a program to check whether a given Number is a prime Number or not.

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

```
int main()
```

```
{
```

```
int i, n, flag=0;
```

```
printf("Enter a Number");
```

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

```
for(i=2; i<=n/2; i++)
```

```
{
```

```
if(n%i==0)
```

```
{
```

```
flag=1;
```

```
break;
```

```
}
```

```
}
```

```
if(flag==1)
```

```
{
```

```
printf("Not Prime");
```

```
}
```

```
else
```

```
{
```

```
printf("Prime");
```

```
}
```

```
return 0;
```

```
Signature.....
```

(9) Write a program to calculate LCM of two Numbers.

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

```
int main()
```

```
{
```

```
int a, b, l;
```

```
for ( printf("Enter a & b Numbers");
```

```
scanf("%d %d", &a, &b);
```

```
for ( l=2; l <= a*b; l++)
```

```
{ if ( l%a == 0 & l%b == 0
```

```
if (a%l == 0 & b%l == 0)
```

```
{ printf("break; break;");
```

```
}
```

```
printf("LCM is %d", l);
```

```
return 0;
```

```
}
```

Write a program to reverse a given Number

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

```
int main()
```

```
{
```

```
    int n, rev, rem
```

```
    printf("Enter a Number");
```

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

```
    while(n != 0)
```

```
    {
```

```
        rem = n % 10;
```

```
        rev = rev * 10 + rem;
```

```
        n /= 10;
```

```
    }
```

```
    printf("Reversed Number = %d", rev);
```

```
    return 0;
```

```
}
```