

## Assignment-6 (Using loop)

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(1) W.A.P to calculate Sum of First N natural No.

int h, Sum=0;

h=5

$$1+2+3+4+5=15$$

scanf("%d", &h);

for (int i=0; i<=h; i++) {

Sum = Sum + i;

}  
printf("Sum is %d", Sum);

(2) W.A.P to calculate Sum of First N even natural number

int h, Sum=0;

h=5

$$2+4+6+8+10=30$$

scanf("%d", &h);

for (int i=0; i<=h; i++) {

Sum = Sum + 2\*i;

}  
printf("Sum is %d", Sum);

(3) W.A.P to calculate Sum of First N odd natural number.

int h, Sum=0;

h=5

$$1+3+5+7+9$$

scanf("%d", &h)

for (int i=1; i<=h; i++) {

Sum = Sum + 2\*i-1;

}  
printf("Sum is %d", Sum);

(4) W.A.P to calculate Sum of Square of First N natural Number.

```

int n, Sum=0;
scanf("%d", &n);
for (int i=1; i<=n; i++) {
    Sum = Sum + i*i;
}
printf("Sum is %d", Sum);

```

h=5  
 $(1)^2 + (2)^2 + (3)^2 + (4)^2 + (5)^2$   
 $1 + 4 + 9 + 16 + 25$

(5) W.A.P to calculate Sum of Cube of First N natural No.

```

int n, Sum=0;
scanf("%d", &n);
for (int i=1; i<=n; i++) {
    Sum = Sum + i*i*i;
}
printf("Sum of cube is %d", Sum);

```

(6) Write a Program to calculate Factorial of a number.

```

int n, Fac=1;
scanf("%d", &n);
for (int i=1; i<=n; i++) {
    Fac = Fac * i;
}
printf("%d", Fac);

```



Q) Write a program to count digit in a given number.

```
int h, count = 0;
scanf("%d", &h);
for (int i = 1; i <= h; i++) {
    h = h / 10;
    count++;
}
printf("%d", count);
```

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

```
scanf("%d", &h);
for (i = 2; i <= h - 1; i++)
{
    if (h % i == 0)
        break;
}
if (i == x)
    printf("Prime")
else
    printf("Not Prime")
```

(9) Write a Program to calculate Lcm of two numbers.

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

```
for (L = a > b ? a : b; L <= a * b; L++)
```

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

```
break;
```

```
printf("Lcm is %d", L);
```

```
for (i = 1; i <= a * b; i++) {
```

```
if (i % a == 0 && i % b == 0) {
```

```
break; }
```

```
printf("Lcm %d", i);
```

(10) Write a Program to Reverse a given number.

```
while (h != 0)
```

```
{ rem = h % 10;
```

```
h = h / 10;
```

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

```
}
```

```
printf("Reverse is %d", rev);
```