

# Assignment 6 Solution

**Q.1** //Write a program to calculate sum of first N natural numbers

//Solution:

```
#include<stdio.h>

int main(){
    int num,sum=0;
    printf("Sum of n natural number is:");
    scanf("%d",&num);
    for(int i=0;i<=num;i++)
    {
        sum=sum+i;
    }
    printf("%d",sum);
    return 0;
}
```

**Q.2** //Write a program to calculate sum of first N even natural numbers

//Solution:

```
#include<stdio.h>

int main(){
    int num,sum=0,count=0;
    printf("Enter a number:");
    scanf("%d",&num);
    for(int i=1;num;i++)
    {
        if(i%2==0)
        {
            sum=sum+i;
            count++;
        }
        if(count==num)
        {

```

```

        break;
    }
}
printf("Sum of %d even natural number is:%d",num,sum);
return 0;
}

```

**Q.3** //Write a program to calculate sum of first N odd natural numbers

//Solution:

```

#include<stdio.h>

int main(){
    int num,sum=0,count=0;
    printf("Enter a number:");
    scanf("%d",&num);
    for(int i=1;num;i++)
    {
        if(i&1==1)
        {
            sum=sum+i;
            count++;
        }
        if(count==num)
        {
            break;
        }
    }
    printf("Sum of fist %d odd number is:%d",num,sum);
    return 0;
}

```

**Q.4** //Write a program to calculate sum of squares of first N natural numbers

//Solution:

```

#include<stdio.h>

int main(){
    int num,sum=0,count=0;
    printf("Enter a number:");

```

```

scanf("%d",&num);
for(int i=1;num;i++)
{
    sum=sum+(i*i);
    count++;
    if(count==num)
    {
        break;
    }
}
printf("Sum of square of first %d natural number is:%d",num,sum);
return 0;
}

```

**Q.5** //Write a program to calculate sum of cubes of first N natural numbers

//Solution:

```

#include<stdio.h>

int main(){
    int num,sum=0,count=0;
    printf("Enter a number:");
    scanf("%d",&num);
    for(int i=1;num;i++)
    {
        sum=sum+(i*i*i);
        count++;
        if(count==num)
        {
            break;
        }
    }
    printf("Sum of cubes of frist %d natural number are:%d",num,sum);
    return 0;
}

```

**Q.6** // Write a program to calculate factorial of a number

//Solution:

```

#include<stdio.h>

int main(){
    int num,fac=1;
    printf("Enter a number:");
    scanf("%d",&num);
    for(int i=1;i<=num;i++)
    {
        fac=fac*i;
    }
    printf("Factoria of %d is:%d",num,fac);
    return 0;
}

```

**Q.7** //Write a program to count digits in a given number

//Solution:

```

#include<stdio.h>

int main(){
    int num,count=0;
    printf("Enter a number:");
    scanf("%d",&num);
    for(int i=1;num;i++)
    {
        num=num/10;
        count++;
    }
    printf("Entered number has %d digits",count);
    return 0;
}

```

**Q.8** //Write a program to check whether a given number is a Prime number or not

//Solution:

```

#include<stdio.h>

```

```

int main(){
    int num,flag=0;

```

```

printf("Enter a number:");
scanf("%d",&num);
for(int i=2;i<num;i++)
{
    if(num%i==0)
    {
        flag=1;
        break;
    }
}
if(flag==1)
{
    printf("Number is not prime");
}
else
{
    printf("Number is prime");
}
return 0;
}

```

**Q.9** //Write a program to calculate LCM of two number

//Solution:

```

#include<stdio.h>

int main(){
    int num,num2;
    printf("Enter two number:");
    scanf("%d%d",&num,&num2);
    for(int i=1;i<=num*num2;i++)
    {
        if(i%num==0 && i%num2==0)
        {
            printf("LCM of %d and %d is %d",num,num2,i);
            break;
        }
    }
    return 0;
}

```

**Q.10** //Write a program to reverse a given number

//Solution:

```
#include<stdio.h>

int main(){
    int num,sum=0,rev=0;
    printf("Enter a number:");
    scanf("%d",&num);
    int var=num;
    for(int i=1;i<=i*num;i++)
    {
        sum=num%10;
        rev=rev+sum;
        rev=rev*10;
        num=num/10;
    }
    printf("Reverse of %d is %d",var,rev/10);
    return 0;
}
```

