**Assignment 4:**

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

#include<stdio.h>

int main()

{

int i,n,sum=0;

printf("Enter a number: ");

scanf("%d",&n);

for(i=1;i<=n;i++)

{

sum=sum+i;

}

printf("Sum of first %d natural numbers is %d",n,sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int i,n,sum=0;

printf("Enter a number: ");

scanf("%d",&n);

for(i=2;i<=2\*n;i+=2)

{

sum=sum+i;

}

printf("Sum of first %d even natural numbers is %d",n,sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int i,n,sum=0;

printf("Enter a number: ");

scanf("%d",&n);

for(i=1;i<=2\*n;i+=2)

{

sum=sum+i;

}

printf("Sum of first %d odd natural numbers is %d",n,sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int i,n,sum=0;

printf("Enter a number: ");

scanf("%d",&n);

for(i=1;i<=n;i++)

{

sum=sum+(i\*i);

}

printf("Sum of square of first %d natural numbers is %d",n,sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int i,n,sum=0;

printf("Enter a number: ");

scanf("%d",&n);

for(i=1;i<=n;i++)

{

sum=sum+(i\*i\*i);

}

printf("Sum of cube of first %d natural numbers is %d",n,sum);

return 0;

}

1. **Write a program to calculate factorial of a number**

#include<stdio.h>

int main()

{

int n,i,fact;

printf("Enter a number: ");

scanf("%d",&n);

fact=n;

for(i=n-1;i>=1;i--)

{

fact=fact\*i;

}

printf("Factorial of %d is %d.",n,fact);

return 0;

}

1. **Write a program to count digits in a given number**

#include<stdio.h>

int main()

{

int i,n,count=0,temp;

printf("Enter a number: ");

scanf("%d",&n);

temp=n;

while(n)

{

n/=10;

count++;

}

printf("Digits in %d is %d.",temp,count);

return 0;

}

1. **Write a program to check whether a given number is a Prime number or not.**

#include<stdio.h>

int main()

{

int n,i,temp=0;

printf("Enter a number: ");

scanf("%d",&n);

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

{

if(n%i==0)

{

temp=1;

break;

}

}

if(temp==0)

printf("%d is a prime number.",n);

else

printf("%d is not prime number.",n);

return 0;

}

1. **Write a program to calculate LCM of two numbers**

#include<stdio.h>

int main()

{

int a,b,lcm,i;

printf("Enter two number: ");

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

if(a>=b)

{

for(i=1;1;i++)

{

if((a\*i)%b==0)

{

lcm=a\*i;

break;

}

}

}

else

{

for(i=1;1;i++)

{

if((b\*i)%a==0)

{

lcm=b\*i;

break;

}

}

}

printf("LCM of %d and %d is %d",a,b,lcm);

return 0;

}

1. **Write a program to reverse a given number.**

#include<stdio.h>

int main()

{

int n,rem,rev=0;

printf("Enter a number: ");

scanf("%d",&n);

while(n)

{

rem=n%10;

rev=rev\*10+rem;

n/=10;

}

printf("Reversed number is %d",rev);

return 0;

}