***Assignment-6***

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

Ans-

#include<stdio.h>

int main()

{

int N,i,sum=0;

printf("enter a number: ");

scanf("%d",&N);

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

{

sum=sum+i;

}

printf("sum of first %d natural number is %d",N,sum);

return 0;

}

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

Ans-#include<stdio.h>

int main()

{

int N,i,sum=0;

printf("enter a number: ");

scanf("%d",&N);

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

{

sum=sum+i\*2;

}

printf("sum of first %d even natural number is %d",N,sum);

return 0;

}

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

Ans-

#include<stdio.h>

int main()

{

int N,i,sum=0;

printf("enter a number: ");

scanf("%d",&N);

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

{

sum=sum+(i\*2-1);

}

printf("sum of first %d odd natural number is %d",N,sum);

return 0;

}

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

Ans-

#include<stdio.h>

int main()

{

int N,i,sum=0;

printf("enter a number: ");

scanf("%d",&N);

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

{

sum=sum+(i\*i);

}

printf("sum of squares of first %d natural number is %d",N,sum);

return 0;

}

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

Ans-

#include<stdio.h>

int main()

{

int N,i,sum=0;

printf("enter a number: ");

scanf("%d",&N);

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

{

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

}

printf("sum of cubes of first %d natural number is %d",N,sum);

return 0;

}

1. Write a program to calculate factorial of a number

Ans-

#include<stdio.h>

int main()

{

int N,i,fact=1;

printf("enter a number: ");

scanf("%d",&N);

for(i=1;i<=N;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

Ans-

#include<stdio.h>

int main()

{

int N,i,n;

printf("enter a number: ");

scanf("%d",&N);

n=N;

for(i=0;n>0;i++)

{

n=n/10;

}

printf("Number of digits in this %d is %d",N,i);

return 0;

}

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

Ans-

#include<stdio.h>

int main()

{

int N,i;

printf("enter a number: ");

scanf("%d",&N);

for(i=2;i<N;i++)

{

if(N%i==0)

break;

}

if(i==N)

printf("%d is prime number",N);

else

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

return 0;

}

1. Write a program to calculate LCM of two numbers

Ans-

#include<stdio.h>

int main()

{

int n,m,i,re,sum=0;

printf("Enter two number: ");

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

if(n>m)

{

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

{

if((m\*i)%n==0)

break;

}

printf("the LCM of %d and %d is %d",n,m,m\*i);

}

else

{

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

{

if((n\*i)%m==0)

break;

}

printf("the LCM of %d and %d is %d",n,m,n\*i);

}

return 0;

}

10. Write a program to reverse a given number

Ans-

#include<stdio.h>

int main()

{

int N,i,re,sum=0;

printf("Enter a number: ");

scanf("%d",&N);

for(i=1;N>0;i++)

{

re=N%10;

sum=sum\*10+re;

N=N/10;

}

printf("Reverse number is %d",sum);

return 0;

}