1. **Write a function to calculate LCM of two numbers. (TSRS)**

#include<stdio.h>

int lcm(int,int);

int main()

{

int a,b;

printf("Enter two numbers: ");

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

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

return 0;

}

int lcm(int a,int b)

{

int i;

if(a>=b)

{

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

{

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

return a\*i;

}

}

else

{

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

{

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

return b\*i;

}

}

}

1. **Write a function to calculate HCF of two numbers. (TSRS)**

#include<stdio.h>

int hcf(int,int);

int main()

{

int a,b;

printf("Enter two numbers: ");

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

printf("HCF of %d and %d is %d",a,b,hcf(a,b));

return 0;

}

int hcf(int a,int b)

{

int i;

if(a<=b)

{

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

{

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

return i;

}

}

else

{

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

{

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

return i;

}

}

}

1. **Write a function to check whether a given number is Prime or not. (TSRS)**

#include<stdio.h>

int ifPrime(int);

int main()

{

int a;

printf("Enter the number: ");

scanf("%d",&a);

if(ifPrime(a))

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

else

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

return 0;

}

int ifPrime(int a)

{

int i;

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

{

if(a%i==0)

return 0;

}

return 1;

}

1. **Write a function to find the next prime number of a given number. (TSRS)**

#include<stdio.h>

int nextPrime(int);

int ifPrime(int);

int main()

{

int a;

printf("Enter a number: ");

scanf("%d",&a);

printf("Next prime number of %d is %d",a,nextPrime(a));

return 0;

}

int nextPrime(int a)

{

int i;

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

{

if(ifPrime(i))

return i;

}

}

int ifPrime(int a)

{

int i;

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

{

if(a%i==0)

return 0;

}

return 1;

}

1. **Write a function to print first N prime numbers (TSRN)**

#include<stdio.h>

void printPrime(int);

int ifPrime(int);

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

printPrime(n);

return 0;

}

void printPrime(int n)

{

int i=2,count=1;

while(count<=n)

{

if(ifPrime(i))

{

printf("%d ",i);

count++;

}

i++;

}

}

int ifPrime(int a)

{

int i;

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

{

if(a%i==0)

return 0;

}

return 1;

}

1. **Write a function to print all Prime numbers between two given numbers. (TSRN)**

#include<stdio.h>

void printPrime(int,int);

int ifprime(int);

int main()

{

int a,b;

printf("Enter two numbers: ");

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

printPrime(a,b);

return 0;

}

int ifPrime(int a)

{

int i;

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

{

if(a%i==0)

return 0;

}

return 1;

}

void printPrime(int a,int b)

{

int i;

for(i=a+1;i<=b-1;i++)

{

if(ifPrime(i))

printf("%d ",i);

}

}

1. **Write a function to print first N terms of Fibonacci series (TSRN)**

#include<stdio.h>

void fibo(int);

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

fibo(n);

return 0;

}

void fibo(int n)

{

int a=0,b=1,c,i;

printf("0 1");

for(i=1;i<=n-2;i++)

{

c=a+b;

printf(" %d",c);

a=b;

b=c;

}

}

1. **Write a function to print PASCAL Triangle. (TSRN)**

#include<stdio.h>

void pascal(int);

int comb(int,int);

int fact(int);

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

pascal(n);

return 0;

}

void pascal(int n)

{

int i,j,k,r;

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

{

k=1;

r=0;

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

{

if(j>=n+1-i&&j<=n-1+i&&k)

{

printf("%3d",comb(i-1,r++));

k=0;

}

else

{

printf(" ");

k=1;

}

}

printf("\n");

}

}

int comb(int n,int r)

{

return fact(n)/fact(n-r)/fact(r);

}

int fact(int n)

{

if(n==0)

return 1;

return n\*fact(n-1);

}

1. **Write a program in C to find the square of any number using the function.**

#include<stdio.h>

int square(int);

int main()

{

int a;

printf("Enter a number: ");

scanf("%d",&a);

printf("Square of %d is %d",a,square(a));

return 0;

}

int square(int a)

{

return a\*a;

}

1. **Write a program in C to find the sum of the series 1! /1+2!/2+3!/3+4!/4+5!/5 using the function.**

#include<stdio.h>

int fact(int);

int sum(int);

int main()

{

printf("Sum of the series is %d ",sum(5));

return 0;

}

int fact(int n)

{

int i,f=n;

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

{

f=f\*i;

}

return f;

}

int sum(int n)

{

int i,s=0;

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

{

s=s+(fact(i)/i);

}

return s;

}