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

Ans #include<stdio.h>

int LCM(int a,int b)

{

int i;

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

{

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

break;

}

return i;

}

int main()

{

int a,b;

printf("Enter two numbers: ");

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

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

return 0;

}

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

Ans #include<stdio.h>

int HCF(int a,int b)

{

int i,hcf=1;

int min=a>b?a:b;

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

{

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

hcf=i;

}

return hcf;

}

int main()

{

int a,b;

printf("Enter two numbers: ");

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

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

return 0;

}

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

Ans #include<stdio.h>

int prime(int a)

{

int i,f=0;

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

{

if(a%i==0)

{

f=1;

break;

}

}

if(f==0)

return 1;

else

return 0;

}

int main()

{

int a;

printf("Enter a number: ");

scanf("%d",&a);

if(prime(a)==1)

printf("Prime");

else

printf("Not Prime");

return 0;

}

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

Ans #include<stdio.h>

int prime(int a)

{

int i,j,k;

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

{

k=0;

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

{

if(i%j==0)

k=1;

}

if(k==0)

return i;

}

}

int main()

{

int a;

printf("Enter a number: ");

scanf("%d",&a);

printf("Next Prime Number is %d",prime(a));

return 0;

}

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

Ans #include<stdio.h>

void prime(int a)

{

int i,j,k;

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

{

k=0;

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

{

if(i%j==0)

k=1;

}

if(k==0)

printf("%d ",i);

}

}

int main()

{

int a;

printf("Enter a number: ");

scanf("%d",&a);

prime(a);

return 0;

}

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

Ans #include<stdio.h>

void prime(int a,int b)

{

int i,j,k;

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

{

k=0;

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

{

if(i%j==0)

k=1;

}

if(k==0)

printf("%d ",i);

}

}

int main()

{

int a,b;

printf("Enter two numbers: ");

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

prime(a,b);

return 0;

}

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

Ans #include<stdio.h>

void fibonacci(int a)

{

int prev=0,cur=1,next=0,n,i;

printf("%d %d ",prev,cur);

for(i=3;i<=a;i++)

{

next=prev+cur;

printf("%d ",next);

prev=cur;

cur=next;

}

}

int main()

{

int a;

printf("Enter a number: ");

scanf("%d",&a);

fibonacci(a);

return 0;

}

8. Write a function to print PASCAL Triangle. (TSRN)

Ans #include<stdio.h>

int fact(int);

int comb(int,int);

void pascal(int );

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

pascal(n);

return 0;

}

int fact(int a)

{

int i,s=1;

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

{

s=s\*i;

}

return s;

}

int comb(int n,int r)

{

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

}

void pascal(int n)

{

int i,j;

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

{

for(j=0;j<=i;j++)

{

printf("%d ",comb(i,j));

}

printf("\n");

}

}

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

Ans #include<stdio.h>

int sq(int);

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

printf("%d is Square of %d ",sq(n),n);

return 0;

}

int sq(int a)

{

int s;

s=a\*a;

return s;

}

10. 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

Ans #include<stdio.h>

int fact(int);

int main()

{

int i,sum=0;

for(i=1;i<=5;i++)

{

sum=sum+fact(i)/i;

}

printf("%d",sum);

return 0;

}

int fact(int a)

{

int i,s=1;

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

{

s=s\*i;

}

return s;

}