1. **/\*Write a program to find the Nth term of the Fibonacci series.\*/**

#include<stdio.h>

int main()

{

int n;

printf("Enter a Number: ");

scanf("%d",&n);

printf("\n %d term of Fibonacci series is %d",n,fib(n));

return 0;

}

int fib(int n)

{

if(n<=1)

return n;

return fib(n-1)+fib(n-2);

}

1. **//Write a program to print first N terms of Fibonacci series**

#include<stdio.h>

int main()

{

int i=2,n,prev=1,curr=1,next=0;

printf("Enter a number:");

scanf("%d",&n);

printf("%d ",prev);

do

{

printf("%d ",curr);

next=prev+curr;

prev=curr;

curr=next;

i++;

}while(i<=n);

return 0;

}

1. **/\*Write a program to check whether a given number is there in the Fibonacci series or not.\*/**

#include<stdio.h>

int main()

{

int i=1,n,prev=1,curr=1,next,flag;

printf("Enter a number:");

scanf("%d",&n);

while(i<=n)

{

next=prev+curr;

prev=curr;

curr=next;

if(n==curr)

{

flag=1;

break;

}

i++;

}

if(flag==1)

printf("%d is exist in Fibonacci series",n);

else

printf("%d is not exist in Fibonacci series",n);

return 0;

}

1. **// Write a program to calculate HCF of two numbers**

#include<stdio.h>

int main()

{

int i=1,a,b,hcf;

printf("Enter two numbers:");

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

int min=a<b?a:b;

while(i<=min)

{

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

{

hcf=i;

}

i++;

}

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

return 0;

}

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

#include<stdio.h>

int main()

{

int a,b,i=2;

printf("Enter two numbers:");

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

while(i<=a+b)

{

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

{

printf("%d and %d are not co-prime",a,b);

break;

}

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

{

printf("%d and %d are co-prime",a,b);

break;

}

i++;

}

return 0;

}

1. **//Write a program to print all Prime numbers under 100**

#include<stdio.h>

int main()

{

int i,j,flag;

printf(" 2");

for(i=2;i<=100;i++)

{

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

{

if(i%j==0)

{

flag=0;

break;

}

else

{

flag=1;

}

}

if(flag==1)

printf(" %d",i);

}

return 0;

}

1. **//Write a program to print all Prime numbers between two given numbers**

#include<stdio.h>

int main()

{

int a,b,i,j,flag;

printf("Enter two numbers:");

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

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

{

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

{

if(i%j!=0)

flag=1;

if(i%j==0)

{

flag=0;

break;

}

}

if(flag==1)

printf(" %d",i);

}

return 0

}

1. **//Write a program to find next Prime number of a given number**

#include<stdio.h>

int main()

{

int i,j,n,flag;

printf("Enter a number:");

scanf("%d",&n);

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

{

for(j=2;j<n;j++)

{

if(i%j!=0)

flag=1;

if(i%j==0)

{

flag=0;

break;

}

}

if(flag==1)

{

printf("Next prime number after %d is %d",n,i);

break;

}

}

return 0;

}

1. **/\*Write a program to check whether a given number is an Armstrong number or not \*/**

#include<stdio.h>

int main()

{

int n,num,num2,i,s=0,r,count=0;

printf("Enter a number:");

scanf("%d",&n);

num=n;

num2=n;

while(n>0)

{

n=n/10;

count++;

}

if(count==3)

{

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

{

r=num%10;

num=num/10;

s=s+(r\*r\*r);

}

}

if(count==2)

{

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

{

r=num%10;

num=num/10;

s=s+(r\*r);

}

}

if(count==1)

{

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

{

r=num%10;

num=num/10;

s=s+r;

}

}

if(s==num2)

printf("%d is an Armstrong number",num2);

else

printf("%d is not an Armstrong number",num2);

return 0;

}

1. **//Write a program to print all Armstrong numbers under 1000.**

#include<stdio.h>

#include<math.h>

int main()

{

int num,i,sum=0,count=0;

for(i=1;i<=1000;i++)

{

num=i;

while(num>0)

{

num/= 10;

count++;

}

num=i;

sum = pow(num % 10, count)

+ pow((num % 100 - num % 10) / 10, count)

+ pow((num % 1000 - num % 100) / 100, count);

if(sum==i)

printf("%d ",sum);

count=0;

}

return 0;

}