1. Write a program to find the Nth term of the Fibonnaci series.

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int n1,n2,sum,n;

    printf("Input nth term: ");

    scanf("%d",&n);

    n1=0;

    n2=1;

    if(n==1)

     printf("%d",n1);

    else if(n==2)

     printf("%d",n2);

    else

    {

      for(int i=3;i<=n;i++)

      {

       sum=n1+n2;

       n1=n2;

       n2=sum;

      }

      printf("%d",sum);

    }

    getch();

    return 0;

}

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

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int n1,n2,sum,n;

    printf("Input nth term: ");

    scanf("%d",&n);

    n1=0;

    n2=1;

    if(n==1)

     printf("%d",n1);

    else if(n==2)

     printf("%d %d ",n1,n2);

    else

    {

        printf("%d %d ",n1,n2);

      for(int i=3;i<=n;i++)

      {

       sum=n1+n2;

       n1=n2;

       n2=sum;

       printf("%d ",sum);

      }

    }

    getch();

    return 0;

}

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

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int n1,n2,sum=0,n;

    printf("Input number: ");

    scanf("%d",&n);

    n1=0;

    n2=1;

    if(n==0)

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

    else

    {

    do

    {

        sum=n1+n2;

        if(sum==n)

        {

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

            break;

        }

        n1=n2;

        n2=sum;

    }while (sum<=n);

    }

    if(sum>n)

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

    getch();

    return 0;

}

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

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int n1,n2,rem,p,q ;

    printf("Input two numbers: ");

    scanf("%d%d",&n1,&n2);

     p=n1,q=n2;

    while(1){

    rem=n1%n2;

    if(rem==0)

    {

      printf("HCF of %d and %d is %d",p,q,n2);

      break;

    }

    n1=n2;

    n2=rem;

    }

    getch();

    return 0;

}

1. Write a program to check whether two given numbers are co-prime numbers or not.

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int n1,n2,rem,p,q ;

    printf("Input two numbers: ");

    scanf("%d%d",&n1,&n2);

     p=n1,q=n2;

    while(1){

    rem=n1%n2;

    if(rem==0)

    {

      break;

    }

    n1=n2;

    n2=rem;

    }

    if(n2==1)

    printf("%d and %d is co-prime",p,q);

    else

    printf("%d and %d is not co-prime",p,q);

    getch();

    return 0;

}

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

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int i,j;

    for ( i = 1; i <= 100; i++)

    {

        for ( j = 2; j <= i-1; j++)

        {

            if(i%j==0)

            break;

        }

        if(i==j)

        printf("%d ",i);

    }

    getch();

    return 0;

}

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

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int n1,n2,i,j;

    printf("Input starting number: ");

    scanf("%d",&n1);

    printf("Input ending number: ");

    scanf("%d",&n2);

    for ( i = n1; i <= n2; i++)

    {

        for ( j = 2; j <= i-1; j++)

        {

            if(i%j==0)

            break;

        }

        if(i==j)

        printf("%d ",i);

    }

    getch();

    return 0;

}

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

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int n,i,j;

    printf("Input a number: ");

    scanf("%d",&n);

    for ( i = n+1; 1; i++)

    {

        for ( j = 2; j <= i-1; j++)

        {

            if(i%j==0)

            break;

        }

        if(i==j)

        {

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

        break;

        }

    }

    getch();

    return 0;

}

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

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int num,rem,sum=0,k;

    printf("Input a number: ");

    scanf("%d",&num);

    k=num;

   do{

    rem=num%10;

    sum=sum+(rem\*rem\*rem);

    if(sum==k)

    {

        printf("%d is a Armstrong number",k);

        break;

    }

    num=num/10;

   }while(num!=0);

    if(sum!=k)

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

    getch();

    return 0;

}

1. Write a program to print all Armstrong numbers under 100.

ANS:-

#include<stdio.h>

#include<conio.h>

int main()

{

    int num,rem,k,sum;

    printf("Armstrong numbers are:\n");

    for(num=1;num<=1000;num++)

    {

    sum=0;

    k=num;

    do{

       rem=k%10;

       sum=sum+(rem\*rem\*rem);

       k=k/10;

     }while(k!=0);

      if(sum==num)

        printf("%d ",num);

    }

    getch();

    return 0;

}