***Assignment-7***

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

Ans-

#include <stdio.h>

int main()

{

int n,i,a=-1,b=1,c;

printf("Enter a number: ");

scanf("%d",&n);

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

{

c=a+b;

a=b;

b=c;

}

printf("The %dth term of the fibonacci series is %d",n,c);

return 0;

}

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

Ans-

#include <stdio.h>

int main()

{

int n,i,a=-1,b=1,c;

printf("Enter a number: ");

scanf("%d",&n);

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

{

c=a+b;

a=b;

b=c;

printf("%d ",c);

}

return 0;

}

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

Ans-

#include <stdio.h>

int main()

{

int n,i,a=-1,b=1,c,p;

printf("Enter a number: ");

scanf("%d",&n);

if(n<6)

p=n\*2;

else

p=n;

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

{

c=a+b;

a=b;

b=c;

if(c==n)

break;

}

if(i==(p+1))

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

else

printf("%d is %d term in the Fibonacci series",n,i);

return 0;

}

1. Write a program to calculate HCF of two numbers

Ans-

#include <stdio.h>

int main()

{

int n,i,a,b,n1,a1,b1;

printf("Enter two number: ");

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

a1=a;

b1=b;

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

{

if(a>b)

{

n=a;

n1=b;

}

if(b>a)

{

n=b;

n1=a;

}

if(n%n1==0)

break;

a=n%n1;

b=n1;

}

printf("\nHCF of %d and %d is %d",a1,b1,n1);

return 0;

}

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

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

Ans-#include<stdio.h>

int main()

{

int i,x;

for(x=1;x<=100;x++)

{

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

{

if(x%i==0)

break;

}

if(x==i)

printf("%d ",x);

}

return 0;

}

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

Ans- #include<stdio.h>

int main()

{

int a,b,x,i,p,q;

printf("enter two numbers");

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

if(a>b){

p=b;

q=a;

}

else{

q=b;

p=a;

}

for(x=p;x<=q;x++)

{

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

{

if(x%i==0)

break;

}

if(i==x)

printf("%d ",x);

}

return 0;

}

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

Ans- #include<stdio.h>

int main()

{

int a,b,x,i,p,q;

printf("enter a number");

scanf("%d",&a);

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

{

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

{

if(x%i==0)

break;

}

if(i==x){

printf("%d ",x);

break;

}

}

return 0;

}

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

Ans- #include<stdio.h>

int main()

{

int a,i,p,q,count=0,mul,re,sum=0;

printf("enter a number");

scanf("%d",&a);

p=a;

q=a;

while(p!=0)

{

count++;

p=p/10;

}

while(q!=0)

{

mul=1;

re=q%10;

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

{

mul=mul\*re;

}

sum=sum+mul;

q=q/10;

}

if(sum==a)

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

else

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

return 0;

}

10. Write a program to print all Armstrong numbers under 1000

Ans- #include<stdio.h>

int main()

{

int i,p,q,count=0,mul,re,sum=0,j;

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

{

count=0;

p=j;

q=j;

while(p!=0)

{

count++;

p=p/10;

}

while(q!=0)

{

mul=1;

re=q%10;

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

{

mul=mul\*re;

}

sum=sum+mul;

q=q/10;

}

if(sum==j)

printf("%d ",j);

sum=0;

}

return 0;

}