

/\* Write a program to generate a set of Fibonacci numbers less than a given number n using an Iterative algorithm.\*/

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

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

```
    clrscr();
```

```
    printf("\n Enter a number=");
```

```
    scanf("\n %d",&n);
```

```
    printf("\n %d",a);
```

```
    printf("\n %d",b);
```

```
    for(i=3;i<=n;i++)
```

```
    {
```

```
        c=a+b;
```

```
        printf("\n %d",c);
```

```
        a=b;
```

```
        b=c;
```

```
    }
```

```
    getch();
```

```
}
```

/\*Write a program to generate a set of Fibonacci numbers less than a given number n using a Recursive algorithm.\*/

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int Fibonacci(int);
```

```
void main()
```

```
{
```

```
    int n,c,i=0;
```

```
    clrscr();
```

```
    printf("Enter a number=");
```

```
    scanf("%d",&n);
```

```
    printf("Fibonacci series is:- \n");
```

```
    for(c=1;c<=n;c++)
```

```
    {
```

```
        printf("%d\n",Fibonacci(i));
```

```
        i++;
```

```
    }
```

```
    getch();
```

```
}
```

```
int Fibonacci(int n)
```

```
{
```

```
    if(n==0)
```

```
        return 0;
```

```
    else if (n==1)
```

```
        return 1;
```

```
    else
```

```
        return(Fibonacci(n-1)+Fibonacci(n-2));
```

```
}
```