PLACEMENTS KEY'S

Coding Challenge #39 (Question)

Day - 20

Nth Fibonacci Number

Given a number n, your program should output the nth number in the Fibonacci sequence.

Sample Input 0:

3

Sample Output 0:

1

Sample Input 1:

6

Sample Output 1:

5

PLACEMENTS KEY'S

Coding Challenge #39 (C Solution)

Day - 20

```c
#include<stdio.h>
int main()
{
	int n,t1=1,t2=0,next,i;
	scanf("%d",&n);
	for(i=1;i<n;i++)
	{
		next=t1+t2;
		t2=t1;
		t1=next;
	}
	printf("%d",t2);
}
```

PLACEMENTS KEY'S

Coding Challenge #39 (JAVA Solution)

Day - 20

```
import java.util.Scanner;
class Main {
 public static void main(String args[])
 {
Scanner sc = new Scanner(System.in);
 int n, t1 = 0, t2 = 1, nextTerm = 0, i;
 n = sc.nextInt();
if(n == 0 || n == 1)
System.out.println(n);
else
nextTerm = t1 + t2;
 for (i = 3; i <= n; ++i)
 {
 t1 = t2;
 t2 = nextTerm;
nextTerm = t1 + t2;
 }
System.out.println(t2);
}
 }
```

PLACEMENTS KEY'S

Coding Challenge #40 (Question)

Day - 20

Write a program to calculate the square root of a number without using the function sqrt.h().

.

Sample Input 0:

16

Sample Output 0:

4

Sample Input 1:

256

Sample Output 1:

16

PLACEMENTS KEY'S

Coding Challenge #40 (C Solution)

Day - 20

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
int n;
scanf("%d", &n);
float i=0.00;
while(i*i<=n)
{
        i=i+0.001;
}
i=i-0.001;
printf("%.2f",i);
return 0;
}
```

PLACEMENTS KEY'S

Coding Challenge #40 (JAVA Solution)

Day - 20

```
import java.util.*;
class Main {
	static int floorSqrt(int x)
	{
		if (x == 0 || x == 1)
			return x;
		int i = 1, result = 1;

		while (result <= x) {
			i++;
			result = i * i;
		}
		return i - 1;
	}
	public static void main(String[] args)
	{
		int x;
		Scanner s=new Scanner(System.in);
		x=s.nextInt();
		System.out.print(floorSqrt(x));
	}
}
```