

LAB2 CPE224

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C:

```
1  #include <stdio.h>
2
3  int main(){
4      int n = 44, i, fn, f0 = 0, f1 = 1;
5      for(i = 1; i < n; i++){ //loop in sequence i < 44
6          //add 2 numbers in series and keep in fn
7          fn = f0 + f1;
8          f0 = f1;
9          f1 = fn;
10     }
11     printf("result: %d", fn);
12     return 0;
13 }
```

D:\OUM\T2-2\CPE224 ComArch\wk 3\LAB\lab2.exe

result: 701408733

Process exited after 0.05255 seconds with return value 0
Press any key to continue . . .

Assembly:

```
Reset to continue editing code
1      MOV     R0, #0 ; Fn
2      MOV     R1, #0 ; F0
3      MOV     R2, #1 ; F1
4      MOV     R3, #1 ; i
5  LOOP
6      ADD     R0, R1, R2 ; R0 = R1 + R2
7      MOV     R1, R2 ; R1 = R2
8      MOV     R2, R0 ; R2 = R0
9      ADD     R3, R3, #1 ; R3 = R3 + 1
10     CMP     R3, #44 ; compare with 44
11     BLT     LOOP ; if i < 44 then loop
12
```

R0	701408733	Dec	Bin	Hex
R1	433494437	Dec	Bin	Hex
R2	701408733	Dec	Bin	Hex
R3	44	Dec	Bin	Hex
R4	0	Dec	Bin	Hex
R5	0x0	Dec	Bin	Hex
R6	0x0	Dec	Bin	Hex