19-10-2023

given a series f(k) = a*k+ b*k*[log2k] + c*k^3

you have to find a value k such that f(k) = x;

here log2k is 2 base log which return absulute value of k;

if a<10 ,  b<10 , c > 0 then it is garunted that Answer does not exit 1000
if a<100 , b<100 , c > 0 then it is garunted that Answer does not exit 1000000 or 100000(can't remember exactly)

all value will be in range 2^63-1; for c++ long long will be enough

Answer is always in range of 54/56(cann't remember exactly) bit range

if no such k value found for the series then Answer will be 0

input:

given a,b,c,x

find  k

******** Total 10 test case**********
*** 4 input output already given in statement ***

// can't use #include <bits/stdc++.h>
but all other c++ header can be use

given source code:

```
#include<iostream>

long long a,b,c,x,Answer;

// this log2 function is implemented already
int log2(lont long k){

 // i cann't remember but already implemented.....
}

int main(){

 int test_case;

 for(test_case = 1;test_case<=10;test_case++){
 cin>>a>>b>>c>>x;
 //Answer = -1;
```

```
 ////////////////////**********

 your code here.....
 // just make a solve function to find appropiate k

 ////////////////**********



 cout<<"# "<<test_case<<" "<<Answer<<endl;


 return 0;
}
```