```cpp
#include<iostream>
using namespace std;
int f(int n){
    if(n == 0) //caso base
        return 0;
    else
        return 1 + f(n/10);
}
/*
    int n;
    cin >> n;
    int dig = 0;
    int d = f(n);
    cout << "d:" << d << endl;
    while(n > 0){
        dig++;
        n = n/10;
    }
    cout << dig << endl;

*/
/// n = 123
///
int coll(int n){//n=13, pruebe con 13
    cout << n << ", ";
    if(n == 1)
        return 0;
    if(n%2 == 0) // par
        return 1 + coll(n/2);
    else
        return 1 + coll(n*3 + 1);
}
/*
int n;
    cin >> n;
    int pasos = coll(n);
    cout << endl << "p: "<<pasos<< endl;
    while(n != 1){
        cout << n << ", ";
        if(n%2 == 0)
            n = n/2;
        else
            n = n*3+1;

    }

*/

int fibu(int n){
    if(n == 0)
        return 0;
    if(n == 1)
        return 1; ///if( n < 2) return n;
    if(n < 2)
        return n;
    return fibu(n-1) + fibu(n-2);
}
```

```
/*
    int n;
    cin >> n;
    for(int i = 0; i <= n; i++){
        cout << fibu(i) << ", ";
    }
    cout << endl;

*/
void numero(int n,int &dig,int &sum){
    if(n == 0)
        return ;
    dig = dig + 1;
    sum = sum + n%10;
    numero(n/10,dig,sum);
}
void pot(int &n,int k){ // n*10^k
    for(int i = 0; i < k; i++)
        n = n*10;
}
/*
    int n,d=0,sum=0;
    cin >> n;
    numero(n,d,sum);
    cout << "d: "<<d << endl;
    cout << "sum: " << sum << endl;
    pot(n,3);
    cout << "n: "<< n << endl;
*/
void poner_k(int v[],int n,int k){
    for(int i = 0; i < n; i++)
        v[i] = k;
}
void ver(int v[],int n){
    for(int i = 0; i < n; i++)
        cout << v[i] << ", ";
    cout << endl;
}
void leer(int v[],int n){
    for(int i = 0; i < n; i++)
        cin>>v[i];
}
/*

    int v[15];
    int n = 15;
    ver(v,n);
    poner_k(v,n,0);
    ver(v,n);
*/
bool es_pal(string g){
    //char cad[];
    /// n = strlen(cad);
    int n = g.size();
    bool sw = true;
    int p1=0,p2=n-1;
    for(int i = 0; i < n/2; i++){
```

```
115         if(g[ p1 ] != g[ p2 ])
116             sw = false; // no es palindromo
117         p1++;
118         p2--;
119     }
120     return sw;
121 }
122 /*
123     string s;
124     cin >> s;
125     if(es_pal(s) == true)
126         cout << " es palindromo" << endl;
127     else
128         cout << "NO ES palindromo" << endl;
129     return 0;
130 
131 */
132 bool es_triangulo(int n,int v[]){
133     bool sw = false;
134     for(int i = 0; i < n; i++){
135         for(int j = 0; j < n; j++){
136             for(int k = 0; k < n; k++){
137                 int a,b,c;
138                 a = v[i];
139                 b = v[j];
140                 c = v[k];
141                 if(i != j && i != k && j != k){//sin repetidos
142                     if(a + b > c && a + c > b && b + c > a)
143                         sw = true;
144                 }
145             }
146         }
147     }
148     return sw;
149 }
150 //struct o class
151 ///struct por defecto es public
152 ///class por defecto es private
153 class punto{
154     int x,y;
155 public:
156     punto(){
157         x = 0; y = -1;
158     }
159     void ver(){
160         cout << "(" << x << "," << y << ")" << endl;
161     }
162 };
163 
164 int main(){
165     int x,y;
166     punto A;
167     A.ver();
168     return 0;
169 }
```