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//100 without recursion=sin recursividad

#include <iostream>

#include <algorithm>

using namespace std;

int main (){

    int i, j;


    while ( cin >>i>>j ) {


        unsigned long long int temp_i = i;//saving initialize i
        unsigned long long int temp_j = j;//savin initialize j


        if ( i > j ) swap (i, j);//swap=intercambiar i for j


        int max_cycle_length = 0;//max cicle length
        int cycle_length;//cycle length


        while ( i <= j ) { //while, when <=j
            int n = i;//initialize for i
            cycle_length = 1;//length of cycle


            while ( n != 1 ) { //cycle, if n different 1
                if ( n % 2 == 1 ) n = 3 * n + 1; //n=(n+1)+n+1; "implement"iterative sum
                else n /= 2;//else n divided 2
                ++cycle_length;//increment length of cycle
            }


            if ( cycle_length > max_cycle_length ) //exchange if cycle length
                max_cycle_length = cycle_length;//exchange..
        }
    }
}

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    ++i;//increment i for "give back"=devolver
}

    //cout<<i<<" "<<j<<" "<< max_cycle_length << endl;
    cout<<temp_i<<" "<< temp_j<<" "<< max_cycle_length << endl;
}

return 0;//return 0, started...
}
```

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//solución a problema 100 de uva
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//by:MADI"MITCH";
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