

## SquareRoot.cpp

```
#include<iostream>

using namespace std;

const double EPS = 10e-10;

double fabs( const double x ){
    if( x >= 0 )
        return x;
    return -x;
}

double find_square_root( double n , double low, double high ){
    if( n < 0 || high-low < 0 )
        return -1;

    if( fabs( 1 - n ) < EPS )
        return 1;

    double mid = (low + high) / 2.0;
    double mid_square = mid*mid;
    double delta = fabs( mid_square - n );

    if( delta < EPS )
        return mid;

    if( mid_square > n )
        return find_square_root( n , low , mid );
    else
        return find_square_root( n , mid , high );
}

double find_square_root( double x ){
    if( fabs(x) < EPS )
        return 0;

    if( x < 0 )
        return -1;

    return find_square_root( x , 0 , x+1 );
}

int main() {
    double a,r;
    cin >> a;
    r = find_square_root( a );
    cout << "La raíz cuadrada de " << a << " es " << r << endl;
    return 0;
}
```