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#include <iostream>
#include <stdio.h>
#include <cmath>
#include <fstream>
#include <complex>
#define _USE_MATH_DEFINES

using namespace std ;
typedef complex<double> dcomp ;
const dcomp racmoinsun = sqrt(dcomp(-1.0));

int prime(int atester)
{
    bool pastrouve=true;
    unsigned long k = 2;

    if (atester == 1) return 0;
    if (atester == 2) return 1;
    if (atester == 3) return 1;
    if (atester == 5) return 1;
    if (atester == 7) return 1;
    while (pastrouve)
    {
        if ((k * k) > atester) return 1;
        else
            if ((atester % k) == 0) {
                return 0 ;
            }
            else k++;
    }
}

int main (int argc, char* argv[])
{
    double zeros[100005], z ;
    dcomp somme ;
    int i, j, k, n, touslesmille ;
    double stocke[1000], rescalcul ;
    bool trouve ;

    std::ifstream fic2("leszerospourj", std::ios::in) ;
    if (fic2)
    {
        while (not fic2.eof()) {
            {
                fic2 >> i >> z ;
                zeros[i] = z ; ;
                //std::cout << z << "\n" ;
            }
        }
        fic2.close();
    }
    else std::cerr << "Impossible d'ouvrir le fichier !" << std::endl ;

    touslesmille=1 ;
    for (i = 2 ; i <= 100000 ; ++i)
    {
        touslesmille=touslesmille+1;
        if (touslesmille <= 1000)
            std::cout << "zeros[" << i << "]^2/zeros[1]^2 -> " << (zeros[i]*zeros[i])/
(zeros[1]*zeros[1]) << "\n" ;
        else if ((touslesmille%1000) == 0)
            std::cout << "zeros[" << i << "]^2/zeros[1]^2 -> " << (zeros[i]*zeros[i])/
(zeros[1]*zeros[1]) << "\n" ;
    }
}

```

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    }  
    std::cout << "\n\n" ;  
}
```