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#include<iostream>
using namespace std;

double suma(int n){
    if (n <= 0) return 0;
    double s = 0, t = 0;
    for (int i = 1; i <= n; i++){
        t += 1.0 / i;
        s += i / t;
    }
    return s;
}

bool esteCrescator(int a[], int n){
    for (int i = 1; i < n; i++){
        if (a[i - 1] > a[i]) return false;
    }
    return true;
}

void afiseaza(int n){
    double x = 0.1;
    for (int i = 1; i <= n; i++){
        cout << "i=" << i << " x=" << x << endl;
        x = 4.0*x*(1.0 - x);
    }
}

void afiseazaSirMaximal(int n){
    double x = 0.1, xnou;
    int istg = 0, istgMax = 0, idrMax = 0;
    for (int i = 1; i <= n; i++){
        cout << "i=" << i << " x=" << x << endl;
        xnou = 4 * x*(1 - x);
        if (x >= xnou || i == n){
            //s-a terminat o secventa strict crescatoare
            if (i - istg > idrMax - istgMax){
                istgMax = istg;
                idrMax = i;
            }
            istg = i;//noul istg
        }
        x = xnou;
    }
    cout << "secventa maximala:" << endl;
    x = 0.1;
    for (int i = 1; i <= idrMax; i++){
        if (i > istgMax) cout << "i=" << i << " x=" << x << endl;
        x = 4 * x*(1 - x);
    }
}

int main(){
    cout << "(nota 7)" << endl;
    cout.precision(12);
    cout << suma(10) << endl;
}

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cout << "(nota 8)" << endl;
int a[] = { 1, 2, 2, 3, 3, 5, 6, 7, 9, 1, 8 };
int nr_elem = 10;
cout << "sirul:" << endl;
for (int i = 0; i < nr_elem; i++){
    cout << a[i] << " ";
}
cout << endl;
if (esteCrescator(a, nr_elem)) cout << "este crescator" << endl;
else cout << "NU este crescator" << endl;

cout << "(nota 9)" << endl;
afiseazaSirMaximal(22);

return 0;
}
```