**Bài 1:**

#include <bits/stdc++.h>

using namespace std;

long long Pow(int x, int y) {

long long res = 1;

for (int i = 1; i <= y; ++i) {

res \*= x;

}

return res;

}

int main() {

int n;

cin >> n;

long long res = 0;

for (int i = 1; i <= n - 1; ++i) {

res += Pow(i, i + 1);

}

cout << res;

}

**Bài 2:**

#include <bits/stdc++.h>

using namespace std;

bool is\_prime(int n) {

for (int i = 2; i \* i <= n; ++i) {

if (n % i == 0) return false;

}

return true;

}

int main() {

int n;

cin >> n;

int sum = 0;

while (n > 0) {

sum += n % 10;

n /= 10;

}

if (is\_prime(sum)) cout << "true";

else cout << "false";

}

**Bài 3:**

#include <bits/stdc++.h>

using namespace std;

const int N = 1e5 + 2;

int n, a[N];

int main() {

cin >> n;

for (int i = 1; i <= n; ++i) cin >> a[i];

int Max = 0, id = -1;

for (int i = 1; i <= n; ++i) {

int MinDist = INT\_MAX;

for (int j = 1; j < n; ++j) {

if (i == j) continue;

if (i - 1 == j) {

if (i < n) MinDist = min(MinDist, abs(a[i + 1] - a[i - 1]));

}

else MinDist = min(MinDist, abs(a[j + 1] - a[j]));

}

if (MinDist > Max) {

Max = MinDist;

id = i;

}

}

for (int i = 1; i <= n; ++i) {

if (i != id) cout << a[i] << " ";

}

}

**Bài 4:**

#include <bits/stdc++.h>

using namespace std;

int main() {

int n; cin >> n;

string s; cin >> s;

int i = 0, j = 0;

while (i < n) {

int cnt = 1;

while (j + 1 < n && s[j] == s[j + 1]) {

++cnt;

++j;

}

cout << cnt << s[i];

++j;

i = j;

}

}

**Bài 5:**

#include <bits/stdc++.h>

using namespace std;

const int N = 1e6 + 2;

int n, S, a[N], cnt[N];

int main() {

cin >> n >> S;

for (int i = 1; i <= n; ++i) cin >> a[i];

long long res = 0;

for (int i = 1; i <= n; ++i) {

if (S >= a[i]) res += cnt[S - a[i]];

++cnt[a[i]];

}

cout << res;

}