

```
#include <iostream>
using namespace std;

int main()
{
    int n, a, b;
    int Total = 0;
    cout << "n , a , b\n";
    cin >> n >> a >> b;
    for (int i = 1; i <= n; ++i)
    {
        int tmp = i;
        int digits_sum = 0;
        while (tmp)
        {
            digits_sum += tmp % 10;
            tmp /= 10;
        }
        if (a <= digits_sum && digits_sum <=
            Total += i;
    }
    cout << Total << "\n";
    return 0;
}
```

```
3 int main()
4 {
5     int n = 1;
6     while (n <= 10)
7     {
8         cout << n << "\n";
9         n++;
10    }
11
12 return 0;
```

```
5     int is_even = 0, is_odd = 0, n = 10;
6     for (int i = 1; i <= n; i++)
7     {
8         if (i%2==0)
9         {
10            is_even++;
11        }
12        else
13        {
14            is_odd++;
15        }
16    }
17
18
19 }
20 cout <<"even is "<<is_even<<" odd is "<<is_odd<<"\n";
```

```
3  
4  
5     int n,  
6     cin>>n;  
7  
8     long long fact =1;  
9     for (int i = 1; i <=n; i++)  
10    {  
11        fact =fact*i;  
12    }  
13  
14    return 0;
```

```
4 {  
5     int n;  
6     cin>>n;  
7     long long fact =1;  
8     for (int i = 1; i <=n; i++)  
9     {  
10         fact =fact*i;  
11     }  
12  
13  
14     return 0;
```

```
include <iostream>
include <algorithm>
sing namespace std;
nt main()
{
int n;
int L = 1000000;
int S = 1000000;
for (int i = 1; i <= 10; i++)
{
    cin >> n;
    L = max(n, L);
    S = min(n, S);
}
cout << L << "\n";
cout << S << "\n";
return 0;
}
```

```
using namespace std;
int main()
{
    int x;
    while (true)
    {
        cin >> x;
        if (x == 0)
            break;
    }
    return 0;
}
```

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

```
4
5
6
7
8
9
10
11
12
13
14 {  
    int n;  
    cin >> n;  
    for (int i = 1; i <= n; i++)  
    {  
        for (int j = 1; j <=i ; j++)  
        {  
            cout << "#";  
        }  
        cout << "\n";  
    }  
}
```

```
#include <iostream>
using namespace std;
int main()
{
    int n=4;
    for (int i = n; i >= 1; i++)
    {
        for (int j = i; j <= i; j--)
            cout << "#";
        cout << "\n";
    }
    return 0;
}
```

```
#include <iostream>
using namespace std;
int main()
{
    long long n, m;
    cin >> m >> n = n % 10;
    cout << m % 10;
    return 0;
}
```

```
6 int N;  
7  
8 cin >> N;  
9  
10 double even_sum = 0, odd_sum = 0;  
11 int even_count = 0, odd_count = 0;  
12  
13 int cnt = 1;  
14 while (cnt <= N)  
15 {  
16     double value;  
17     cin >> value;  
18  
19     if (cnt % 2 == 0)  
20         even_sum += value, even_count++;  
21     else  
22         odd_sum += value, odd_count++;  
23  
24     cnt++;  
25 }
```

```
#include<iostream>
using namespace std;

int main()
{
    int x, y;
    cin >> x >> y;
    while (x <= y)
    {
        cout << x << endl;
        x++;
    }
    return 0;
}
```

```
#include <iostream>
using namespace std;

int main()
{
    int num;
    char ch;
    cin >> num >> ch;
    while (num > 0)
    {
        cout << ch;
        num -= 1;
    }
    return 0;
}
```

```
#include <iostream>
using namespace std;

int main()
{
    int N;
    cin >> N;

    int row = 1;
    while (row <= N)
    {
        int stars_count = 1;
        while (stars_count <= row)
        {
            cout << "*";
            stars_count++;
        }
        cout << "\n";
        row++;
    }

    return 0;
}
```

```
#include <iostream>
using namespace std;
```

```
int main()
{
    int N;
    cin >> N;

    int row = 1;
    while (row <= N)
    {
        int stars_count = 1;
        while (stars_count <= row)
        {
            cout << '*';
            stars_count++;
        }
        cout << "\n";
        row--;
    }
    return 0;
}
```

```
using namespace std;
```

```
2 int main()
3 {
4     int N;
5     cin >> N;
6     int row = 1;
7     while (row <= N)
8     {
9         int stars_count = 1;
10        while (stars_count <= N - row)
11        {
12            cout << " ";
13            stars_count++;
14        }
15        stars_count = 1;
16        while (stars_count <= 2 * row - 1)
17        {
18            cout << "*";
19            stars_count++;
20        }
21        cout << "\n";
22        ++row;
23    }
24    row = N;
25 }
26 while (row >= 1)
27 {
28     int stars_count = 1;
29     while (stars_count <= N - row)
30     {
31         cout << " ";
32         stars_count++;
33     }
34 }
```

```
30
31     while (stars_count <= N - row)
32     {
33         cout << ' ';
34         ++stars_count;
35     }
36     stars_count = 1;
37     while (stars_count <= 2 * row - 1)
38     {
39         cout << '*';
40         ++stars_count;
41     }
42     cout << "\n";
43     --row;
44 }
```

```
3
4 int main()
5 {
6     int N;
7     cin >> N;
8     int res = 0;
9     int count = 0;
10    while (count <= N)
11    {
12        if (count % 8 == 0 || count % 3 == 0 && count % 4 == 0)
13        {
14            cout << count << " ";
15            count++;
16        }
17    }
18
19    return 0;
20}
21}
```

```
3
4 int main()
5 {
6     int N;
7     cout << "Value of N = \n";
8     cin >> N;
9
10    int pos = 0;
11
12    while (pos < N) |
13    {
14        string str;
15        cin >> str;
16        if (str == "no" || str == "No" || str == "nO" || str == "NO" ||
17            str == "on" || str == "oN" || str == "On" || str == "ON")
18            cout << str << " ";
19
20        pos++;
21    }
22    return 0;
```

```
5
6     int N;
7
8     cin >> N;
9
10    int number = 0;
11
12    while (N > 0)
13    {
14        int last_digits = N % 10;
15        N = N / 10;
16
17        number = number * 10 + last_digits;
18    }
```

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     int T;
7     cin >> T;
8
9     while (T > 0)
10    {
11        int N;
12        cin >> N;
13
14        int pos = 0;
15        int result;
16
17        while (pos < N)
18        {
19            int value;
20            cin >> value;
21
22            if (pos == 0)
23                result = value;
24            else if (result > value)
25                result = value;
26
27            pos++;
28        }
29        cout << result << "\n";
30
31    --T;
32
33
34
35    return 0;
}
```

```
#include <iostream>
```

```
using namespace std;
```

```
string rev(const string &str)
```

```
{
```

```
    string ret = str;
```

```
    int st = 0, en = (int)str.size() - 1;
```

```
    while (st < en)
```

```
    {
```

```
        char tmp = ret[en];
```

```
        ret[en] = ret[st];
```

```
        ret[st] = tmp;
```

```
        st++;
```

```
        en--;
```

```
    }
```

```
    return ret;
```

```
int main()
```

```
{
```

```
    cout << rev("") << "\n";
```

```
    cout << rev("abc") << "\n";
```

```
    cout << rev("abcde") << "\n";
```

```
    return 0;
```

```
de <iostream>
```

```
namespace std:
```

```
in()
```

```
t m0[] = {5, 7, 8, 9, 4, 3, 2, 1};  
t size = sizeof(m0) / sizeof  
r (int i = 0; i < size;  
cout << m0[i];  
turn ③
```

```
2 using namespace std;
3 int main()
4 {
5     int nums[4];
6
7     for (int i = 0; i < 4; i++)
8     {
9         cin >> nums[i];
10    }
11    for (int i = 3; i < 4; i++)
12    {
13        cout << nums[0] + nums[1] + nums[2] + nums[3];
14    }
15
16    return 0;
17 }
```

```
int n, a[N], mn = 10000, mx = -1;
cin >> n;
for (int i = 0; i < n; i++)
{
    cin >> a[i];
    if (a[i] < mn)
    {
        mn = a[i];
    }
    if (a[i] > mx)
    {
        mx = a[i];
    }
}
for (int i = 0; i < n; i++)
{
    if (a[i] == mn)
        a[i] = mx;
    else if (a[i] == mx)
        a[i] = mn;
}
for (int i = 0; i < n; i++)
{
    if (i)
        cout << " ";
    cout << a[i];
}
```

```
int main()
{
    int n, tmp, mn[3];
    cin >> n;
    for (int i = 0; i < n; i++)
    {
        int value;
        cin >> value;
        if (i < 3)
            mn[i] = value;
        else
        {
            int mx_pos = 0;
            for (int j = 1; j < 3; ++j)
            {
                if (mn[mx_pos] < mn[j])
                    mx_pos = j;
            }
            if (value < mn[mx_pos])
                mn[mx_pos] = value;
        }
        int mx_pos = 0;
        for (int j = 1; j < 3; ++j)
        {
            if (mn[mx_pos] < mn[j])
                mx_pos = j;
        }
        tmp = mn[2];
        mn[2] = mn[mx_pos];
        mn[mx_pos] = tmp;
        if (mn[0] > mn[1])
    }
}
```

```
4
5
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9
10
11
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14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
```

```
int main()
{
    int n, tmp, mn[3];
    cin >> n;
    for (int i = 0; i < n; i++)
    {
        int value;
        cin >> value;
        if (i < 3)
            mn[i] = value;
        else
        {
            int mx_pos = 0;
            for (int j = 1; j < 3; ++j)
            {
                if (mn[mx_pos] < mn[j])
                    mx_pos = j;
            }
            if (value < mn[mx_pos])
                mn[mx_pos] = value;
        }
        int mx_pos = 0;
        for (int j = 1; j < 3; ++j)
        {
            if (mn[mx_pos] < mn[j])
                mx_pos = j;
        }
        tmp = mn[2];
        mn[2] = mn[mx_pos];
        mn[mx_pos] = tmp;
        if (mn[0] > mn[1])
    }
}
```

```
39     mn[0] = mn[1];
40     mn[1] = tmp;
41 }
42
43 for (int i = 0; i < 3; i++)
44     cout << mn[i] << " ";
45
46 return 0;
47 }
```

```
#include <iostream>
using namespace std;
```

```
int main()
{
    const int N = 200;

    int n, a[N];
    cin >> n;
    for (int i = 0; i < n; i++)
        cin >> a[i];

    int mn;
    bool first_time = true;
    for (int i = 0; i < n; i++)
    {
        for (int j = i + 1; j < n; j++)
        {
            int tmp = a[i] + a[j] + j - i;
            if (first_time || tmp < mn)
            {
                mn = tmp;
                first_time = false;
            }
        }
    }
    cout << mn << endl;
    return 0;
}
```

```
#include <iostream>
using namespace std;
```

```
int main()
```



```
    int arr[1000];
```

```
    int N;
```

```
    cin >> N;
```

```
    for (int i = 0; i < N; i++)
        cin >> arr[i];
```

```
    for (int i = 0; i < N / 2; i++)
    {
        if (arr[i] != arr[N - 1 - i])
```

```
        {
            cout << "NO";
            return 0;
        }
    }
```

```
    cout << "YES";
    return 0;
}
```



```
4 int main()
5 {
6     int n;
7     cin >> n;
8     const int MAX = 270 + 500 + 1;
9     int frequency[MAX] = {0};
10
11    for (int i = 0; i < n; i++)
12    {
13        int value;
14        cin >> value;
15
16        value += 500;
17        frequency[value]++;
18    }
19
20    int mx_pos = 0;
21    for (int i = 1; i < MAX; i++)
22    {
23        if (frequency[mx_pos] < frequency[i])
24            mx_pos = i;
25    }
```

```
#include <iostream>
using namespace std;

main()
{
    int n, x, occurrence[10] = {0};
    cin >> n;
    for (int i = 0; i < n; i++)
    {
        cin >> x;
        while (x)
        {
            int digit = x % 10;
            occurrence[digit]++;
            x /= 10;
        }
    }
    for (int i = 0; i <= 9; i++)
    {
        cout << i << " " << occurrence[i];
    }
}
```

```
include <iostream>
sing namespace std;
```

```
nt main()
```

```
const int N = 201;
int sequence[N], idx;
```

```
int occurrence[N * 10] = {0};
```

```
cin >> idx;
```

```
sequence[0] = 0;
```

```
occurrence[0] = 1;
```

```
for (int i = 1; i <= idx; i++)
```

```
{
```

```
    int cur = sequence[i - 1] - (i - 1) -
```

```
    if (cur < 0 || occurrence[cur])
```

```
        cur = sequence[i - 1] + (i - 1) +
```

```
        sequence[i] = cur;
```

```
        occurrence[cur] = 1;
```

```
}
```

```
cout << sequence[idx];
```

```
return 0;
```

```
2 using namespace std;
3 int main()
4 {
5     string name1;
6     cin>>name1;
7     int N = name1.length();
8     cout<<N<<"\n";
9     return 0;
10 }
```

```
include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
int n;
```

```
cin >> n;
```

```
for (int i = 0; i < n; ++i)
```

```
{
```

```
    for (int j = 0; j < n; ++j)
```

```
{
```

```
        if (i == j || n - i - 1
```

```
            cout << "*";
```

```
        else
```

```
            cout << " ";
```

```
}
```

```
    cout << "\n";
```

```
}
```

```
return 0;
```

```
#include <iostream>
```

```
using namespace std;
```

```
int count = 0;
```

```
for (int x = 50; x <= 300; ++x)
{
    for (int y = 70; y <= 400; ++y)
    {
        if (x < y && ((x + y) % 7
                         + count;
        cout << count << "\n";
    }
    return 0;
}
```

```
#include<iostream>
using namespace std;

int main()
{
    int count = 0;

    for (int x = 50; x <= 300; ++x)
    {
        int start = 70;

        if (start < x + 1)
            start = x + 1;

        for (int y = start; y <= 400; ++y)
        {
            if ((x + y) % 7 == 0)
            {
                count++;
            }
        }
    }

    cout << count << "\n";
}

return 0;
```

```
include <iostream>
using namespace std;
```

```
int main()
```

```
{
```

```
    int count = 0;
```

```
    for (int a = 1; a <= 200; ++a)
```

```
{
```

```
        for (int b = 1; b <= 200; ++b)
```

```
{
```

```
            for (int c = 1; c <= 200; ++c)
```

```
{
```

```
                for (int d = 1; d <= 200; ++d)
```

```
{
```

```
                    count += (a + b == c ?
```

```
                    :
```

```
                    0);
```

```
}
```

```
}
```

```
}
```

```
cout << count << "\n";
```

```
return 0;
```

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     int number;
7     cout << "enter the number:\n";
8     cin >> number;
9
10    if (number == 1)
11        cout << "NO\n";
12    else
13    {
14        bool is_ok = true;
15
16        for (int i = 2; i < number; ++i)
17        {
18            if (number % i == 0)
19            {
20                is_ok = false;
21                break;
22            }
23        }
24
25        if (is_ok)
26            cout << "YES";
27        else
28            cout << "NO";
29
30    }
31
32 }
```