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#include <bits/stdc++.h>
using namespace std;

void pattern1(int n){
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < n; j++)
        {
            cout << "*";
        }
        cout << endl;
    }
}

void pattern2(int n){
    for (int i = 1; i <= n; i++)
    {
        for (int j = 0; j < i; j++)
        {
            cout << "* ";
        }
        cout << endl;
    }
}

void pattern3(int n){
    for (int i = 1; i <= n; i++)
    {
        for (int j = 1; j <= i; j++)
        {
            cout << j << " ";
        }
        cout << endl;
    }
}

void pattern4(int n){
    for (int i = 1; i <= n; i++)
    {
        for (int j = 1; j <= i; j++)
        {
            cout << i << " ";
        }
        cout << endl;
    }
}

void pattern5(int n){
    for (int i = 1; i <=n; i++)
    {

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        for (int j = 1; j <= n - i + 1; j++)
        {
            cout << "* ";
        }
        cout << endl;
    }
}

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void pattern6(int n){
    for (int i = 1; i <= n; i++)
    {
        for (int j = 1; j <= n-i+1; j++)
        {
            cout << j << " ";
        }
        cout << endl;
    }
}

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void pattern7(int n)
{
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < n - i - 1; j++)
        {
            cout << " ";
        }
        for (int j = 0; j < 2 * i + 1; j++)
        {
            cout << "*";
        }
        for (int j = 0; j < n - i - 1; j++)
        {
            cout << " ";
        }
        cout << endl;
    }
}

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void pattern8(int n)
{
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < i ; j++)
        {
            cout << " ";
        }
        for (int j = 0; j < 2 * n - (2 * i + 1); j++)
        {
            cout << "*";
        }
    }
}

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    }
    for (int j = 0; j < i; j++)
    {
        cout << " ";
    }
    cout << endl;
}
}

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void pattern9(int n){
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < n - i - 1; j++)
        {
            cout << " ";
        }
        for (int j = 0; j < 2 * i + 1; j++)
        {
            cout << "*";
        }
        for (int j = 0; j < n - i - 1; j++)
        {
            cout << " ";
        }
        cout << endl;
    }
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < i ; j++)
        {
            cout << " ";
        }
        for (int j = 0; j < 2 * n - (2 * i + 1); j++)
        {
            cout << "*";
        }
        for (int j = 0; j < i; j++)
        {
            cout << " ";
        }
        cout << endl;
    }
}

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void pattern10(int n){
    for (int i = 1; i <= 2 * n - 1; i++)
    {
        int stars = i;
        if (i > n) stars = 2 * n - i;
        for (int j = 1; j <= stars; j++)

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    {
        cout << "*";
    }
    cout << endl;
}
}

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void pattern11(int n){
    int start = 1;
    for (int i = 0; i < n; i++)
    {
        if (i % 2 == 0) start = 1;
        else start = 0;
        for (int j = 0; j <= i; j++){
            cout << start;
            start = 1 - start;
        }
        cout << endl;
    }
}

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void pattern12(int n)
{
    int space = 2 * (n - 1);
    for (int i = 1; i <= n; i++)
    {
        // numbers
        for (int j = 1; j <= i; j++)
        {
            cout << j;
        }

        // space
        for (int j = 1; j <= space; j++)
        {
            cout << " ";
        }

        // numbers
        for (int j = i; j >= 1; j--)
        {
            cout << j;
        }

        cout << endl;
        space -= 2;
    }
}

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void pattern13(int n){

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int num = 1;
for (int i = 0; i <= n; i++)
{
    for (int j = 0; j <= i; j++)
    {
        cout << num << " ";
        num = num + 1;
    }
    cout << endl;
}
}

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void pattern14(int n){
    for (int i = 0; i <= n ; i++)
    {
        for (char ch = 'A'; ch <= 'A' + i; ch++)
        {
            cout << ch << " ";
        }
        cout << endl;
    }
}

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void pattern15(int n){
    for (int i = 0; i < n; i++)
    {
        for (char ch = 'A'; ch <= 'A' + (n - i - 1); ch++)
        {
            cout << ch << " ";
        }
        cout << endl;
    }
}

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void pattern16(int n){
    for (int i = 0; i < n; i++)
    {
        char ch = 'A' + i;
        for (int j = 0; j <= i; j++)
        {
            cout << ch << " ";
        }
        cout << endl;
    }
}

```

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void pattern17(int n){
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < n - i - 1; j++)

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    {
        cout << " ";
    }

    char ch = 'A';
    int breakpoint = (2 * i + 1) / 2;
    for (int j = 1; j <= 2 * i + 1; j++)
    {
        cout << ch;
        if(j <= breakpoint) ch++;
        else ch--;
    }

    for (int j = 0; j < n - i - 1; j++)
    {
        cout << " ";
    }
    cout << endl;
}
}

void pattern18(int n){
    for (int i = 0; i < n; i++)
    {
        for (char ch = 'E'; ch <= 'E' + i ; ch++)
        {
            cout << ch << " ";
        }
        cout << endl;
    }
}

void pattern19(int n){
    int inis = 0;
    for (int i = 0; i < n; i++)
    {
        // stars
        for (int j = 1; j <= n - i; j++)
        {
            cout << "*";
        }
        // spaces
        for (int j = 0; j < inis; j++)
        {
            cout << " ";
        }
        // stars
        for (int j = 1; j <= n - i; j++)
        {
            cout << "*";
        }
    }
}

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    }
    inis += 2;
    cout << endl;
}

inis = 8;
for (int i = 1; i <= n ; i++)
{
    // stars
    for (int j = 1; j <= i; j++)
    {
        cout << "*";
    }
    // spaces
    for (int j = 0; j < inis; j++)
    {
        cout << " ";
    }
    // stars
    for (int j = 1; j <= i; j++)
    {
        cout << "*";
    }
    inis -= 2;
    cout << endl;
}
}

void pattern20(int n){
    int spaces = 2*n - 2;
    for (int i = 1; i <= 2*n-1; i++)
    {
        int stars = i;
        if (i > n)
        {
            stars = 2*n - i;
        }
        for (int j = 1; j <= stars; j++)
        {
            cout << "*";
        }
        for (int j = 1; j <= spaces; j++)
        {
            cout << " ";
        }

        for (int j = 1; j <= stars; j++)
        {
            cout << "*";
        }
    }
}

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        cout << endl;
        if (i < n)spaces -= 2;
        else spaces += 2;
    }
}

void pattern21(int n){
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < n; j++)
        {
            if (i == 0 || j == 0 || i == n-1 || j == n-1)
            {
                cout << "*";
            }
            else cout << " ";
        }
        cout << endl;
    }
}

void pattern22(int n){
    for (int i = 0; i < 2*n - 1; i++)
    {
        for (int j = 0; j < 2*n - 1; j++)
        {
            int top = i;
            int left = j;
            int right = (2*n - 2) - j;
            int bottom = (2*n - 2) - i;
            cout << (n - min(min(top, bottom), min(left, right)))<<" ";
        }
        cout << endl;
    }
}

int main()
{
    int n;
    cout << "Enter a number : ";
    cin >> n;
    pattern22(n);
    return 0;
}

```