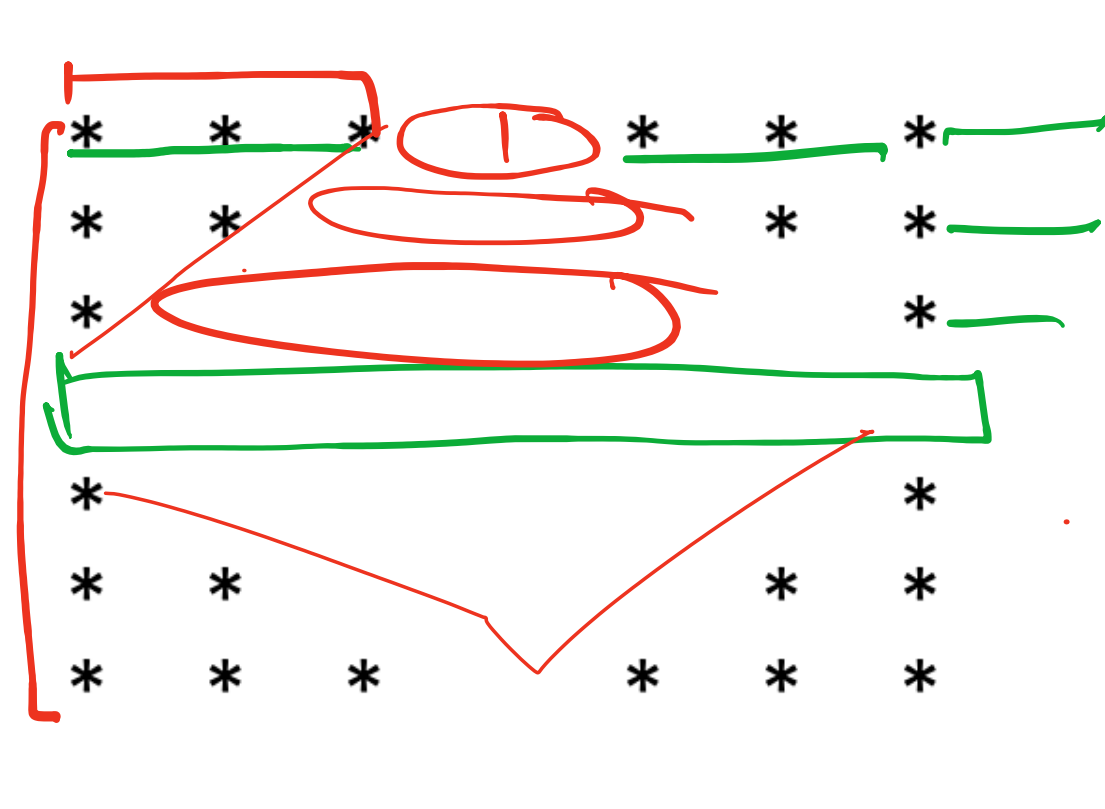


N = 7

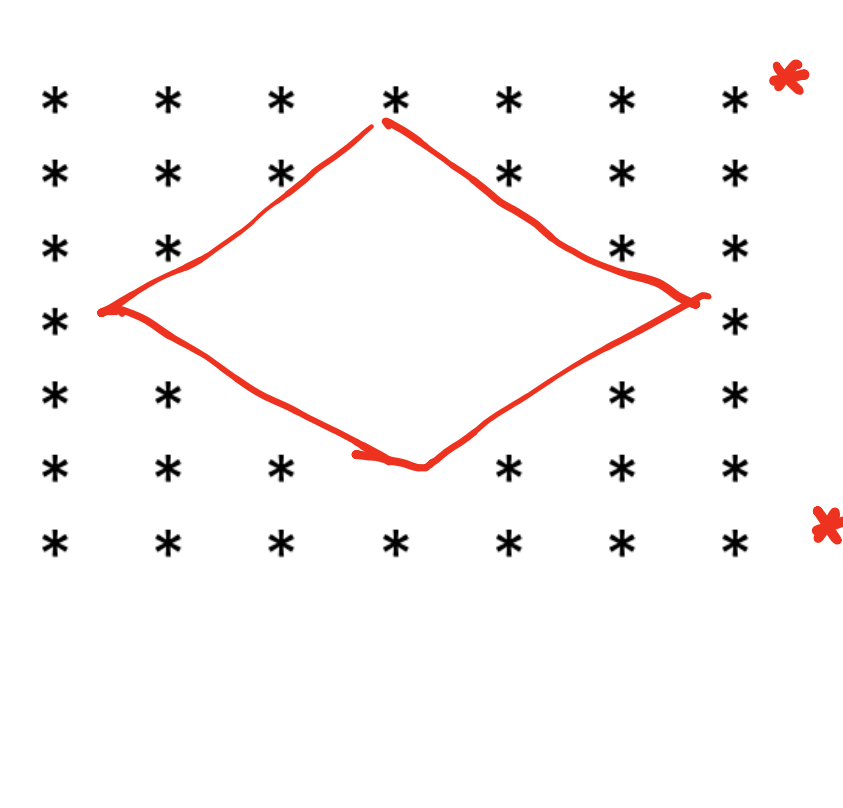
minVal $\rightarrow \frac{N}{2} + 1$

Row = 1 Start = $\frac{N}{2}$ Space = 1
while (Row \leq n) {
 // star
 // space
 // star
 // minVal
 if (Row $\leq \frac{N}{2} + 1$)
 Star--
 Space = Space + 2
 else
 Star++
 Space = Space - 2
 Row++
}



```
#include <iostream>
using namespace std;
int main() {
    int n;
    cin >> n;
    int row=1;
    int star=n/2;
    int space=1;
    while(row<=n){
        // star
        int i=1;
        while(i<=star){
            cout<<"* ";
            i++;
        }
        // space
        int j=1;
        while(j<=space){
            cout<<" ";
            j++;
        }
        // star
        int k=1;
        while(k<=star){
            cout<<"* ";
            k++;
        }
        // mirror
        if(row<=n/2+1){
            star--;
            space+=2;
        }
        else{
            star++;
            space-=2;
        }
        // next row ki prep
        row++;
        cout<<endl;
    }
}
```

Ques 19:
n = 7



Row = 1 Star = $\frac{N}{2} + 1$ Space = -1

while (Row \leq n) {
 // star
 // space
 // star
 // minVal
 if (Row $\leq \frac{n}{2} + 1$)
 Star--
 Space = Space + 2
 else
 Star++
 Space = Space - 2
 Row++
}

```
#include <iostream>
using namespace std;
int main() {
    int n;
    cin >> n;
    int row=1;
    int star=n/2+1;
    int space=-1;
    while(row<=n){
        // star
        int i=1;
        while(i<=star){
            cout<<"* ";
            i++;
        }
        // space
        int j=1;
        while(j<=space){
            cout<<" ";
            j++;
        }
        // star
        int k=1;
        while(k<=star){
            cout<<"* ";
            k++;
        }
        // mirror
        if(row<=n/2+1){
            star--;
            space+=2;
        }
        else{
            star++;
            space-=2;
        }
        // next row ki prep
        row++;
        cout<<endl;
    }
}
```

Ques 25:
n = 5



#include <iostream>
using namespace std;
int main(){
 int n;
 cin >> n;
 int row=1, star=1, space=n-1;
 while(row<=n){
 // sapce
 int i=1;
 while(i<=space){
 cout<<"t";
 i++;
 }
 // star
 int j=1;
 while(j<=star){
 cout<<val<<"t";
 val++;
 j++;
 }
 // next row ki prep
 star=star+2;
 space=space-2;
 row++;
 cout<<endl;
 }
}

```
#include <iostream>
using namespace std;
int main(){
    int n;
    cin >> n;
    int row=1, star=1, space=n-1;
    int val=1;
    while(row<=n){
        // sapce
        int i=1;
        while(i<=space){
            cout<<"t";
            i++;
        }
        // star
        int j=1;
        while(j<=star){
            cout<<val<<"t";
            val++;
            j++;
        }
        // next row ki prep
        star=star+2;
        space=space-2;
        row++;
        cout<<endl;
    }
}
```

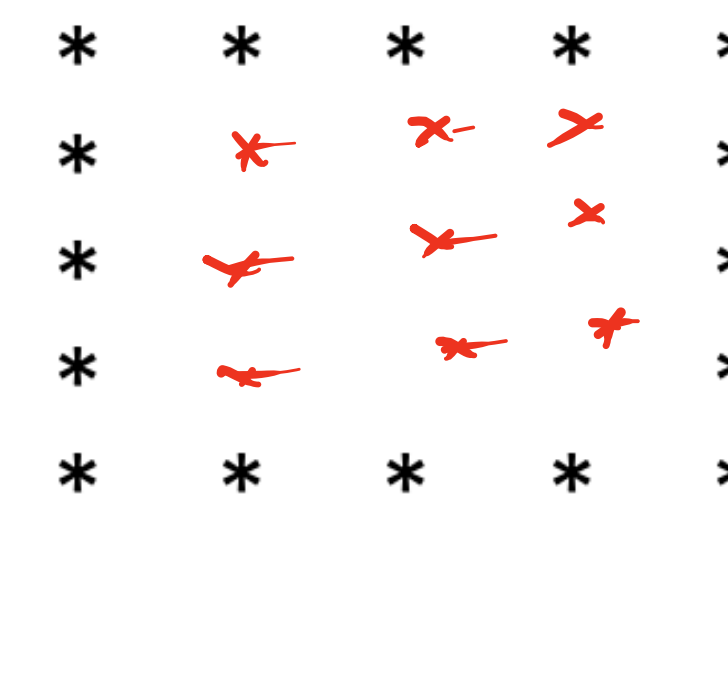
Row = 1 Star = 1 Space = 4
Row = 2 Star = 3 Space = 2
Row = 3 Star = 5 Space = 0
Row = 4 Star = 3 Space = 2
Row = 5 Star = 1 Space = 4

Ques 29:
n = 5



#include <iostream>
using namespace std;
int main(){
 int n;
 cin >> n;
 int row=1, star=1, space=n-1;
 while(row<=n){
 // sapce
 int i=1;
 while(i<=space){
 cout<<" ";
 i++;
 }
 // star
 int j=1;
 while(j<=star){
 cout<<val<<" ";
 val++;
 j++;
 }
 // next row ki prep
 star=star+2;
 space=space-2;
 row++;
 cout<<endl;
 }
}

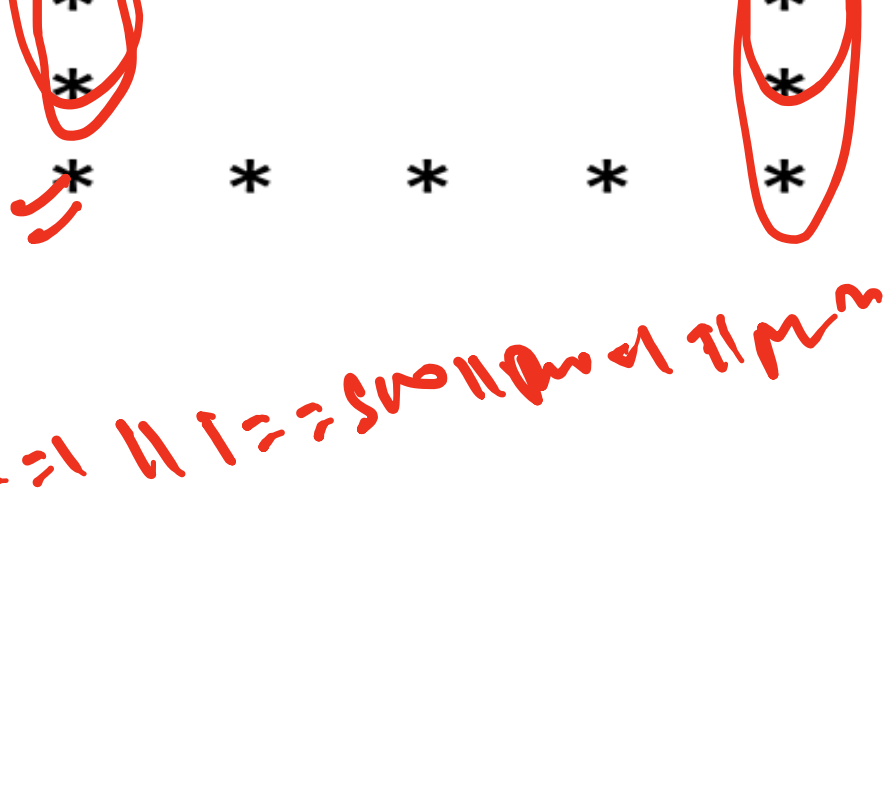
Ques 7:
n = 5



Row = 1
Row = N
i = 1
i = star

```
#include <iostream>
using namespace std;
int main()
{
    int n;
    cin >> n;
    int row=1, star=n;
    while(row<=n){
        // star
        int i=1;
        while(i<=star){
            cout<<"* ";
            i++;
        }
        // next row ki prep
        row++;
    }
    return 0;
}
```

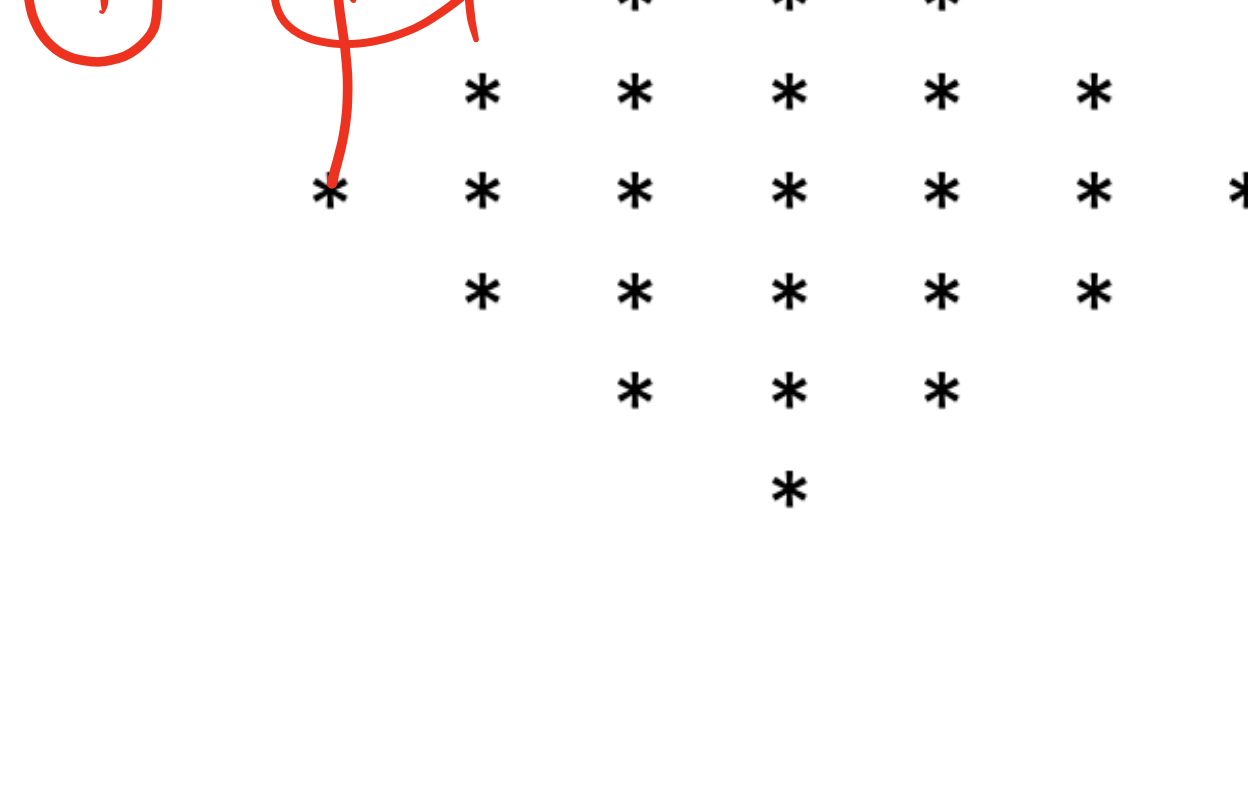
Ques 7:
n = 5



if (i == 1 || i == star) {
 // ...
}

```
#include <iostream>
using namespace std;
int main(){
    int n;
    cin >> n;
    int row=1, star=n;
    while(row<=n){
        // star
        int i=1;
        while(i<=star){
            if(row==1 || row==n){
                cout<<"* ";
            }
            else{
                cout<<" ";
            }
            i++;
        }
        // next row ki prep
        cout<<endl;
        row++;
    }
    return 0;
}
```

Ques 18:
n = 7



Row = 1 Star = 1 Space = $\frac{N}{2}$
while (Row \leq n) {
 // star
 // space
 // minVal
 if (Row $\leq \frac{n}{2}$)
 Star--
 Space = Space + 2
 else
 Star++
 Space = Space - 2
 Row++
}