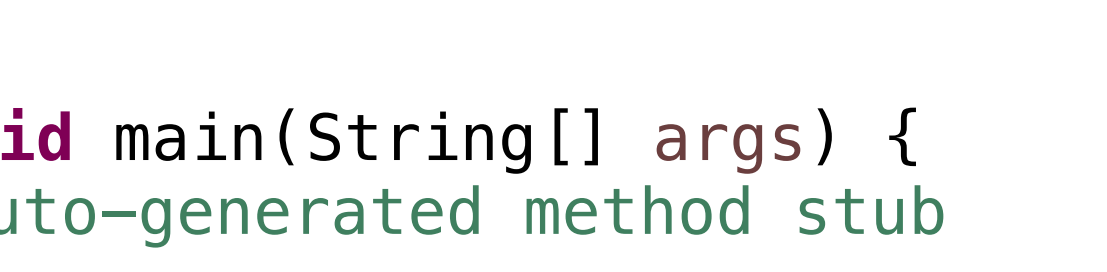
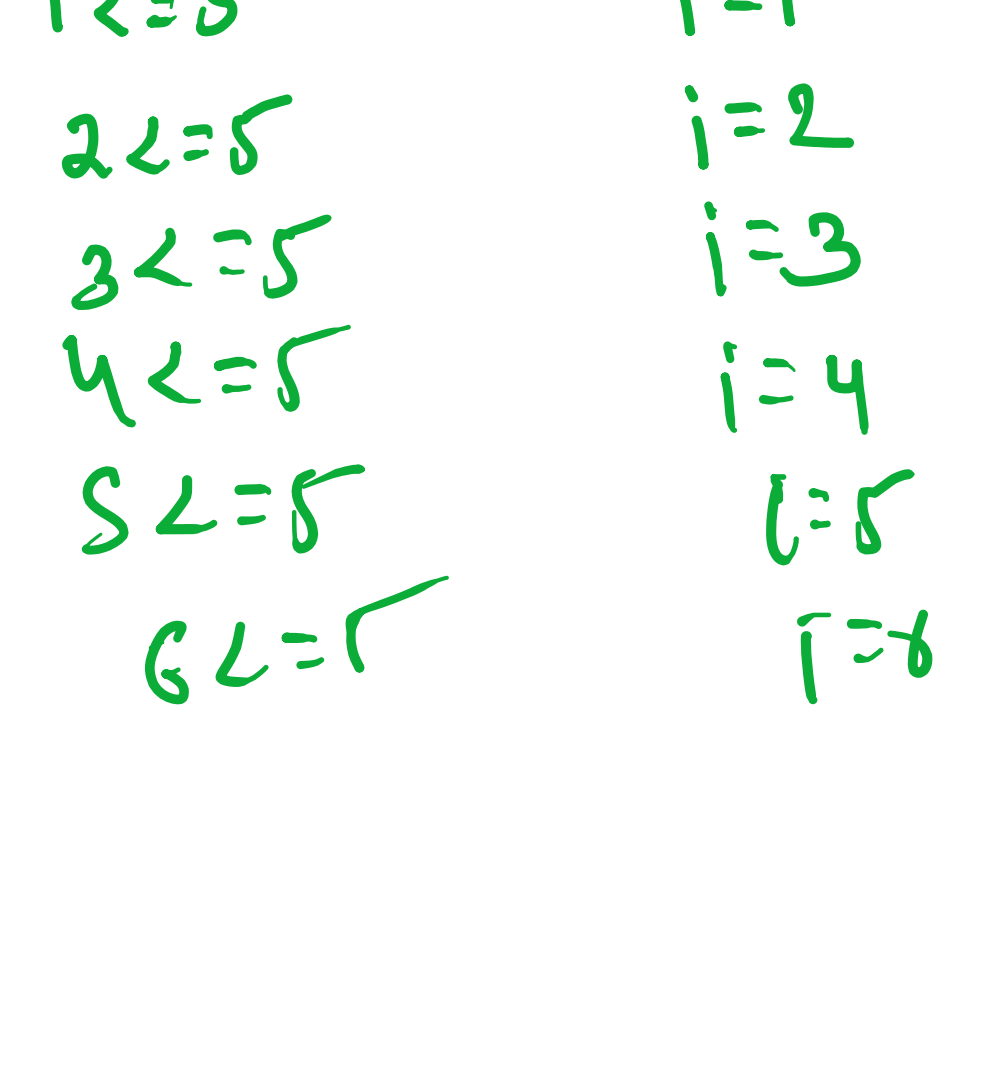
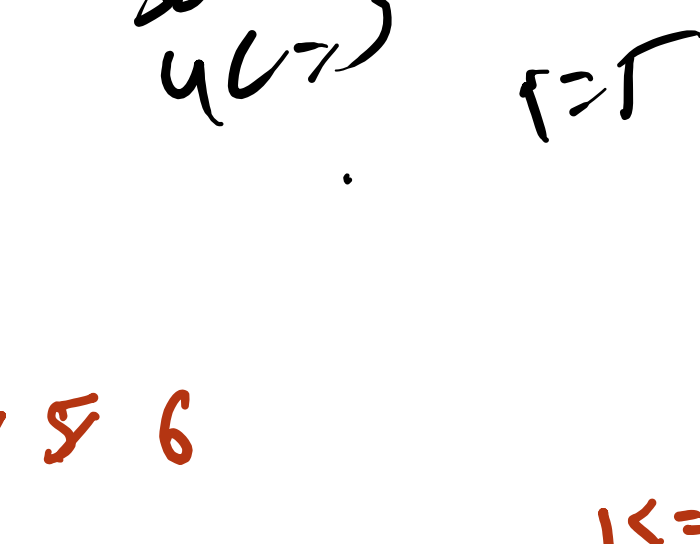


```
public static void main(String[] args) {
    int n = 5;
    int i = 1;
    while (i <= n) {
        // self work
        System.out.println(i);
        i++;
    }
}
```



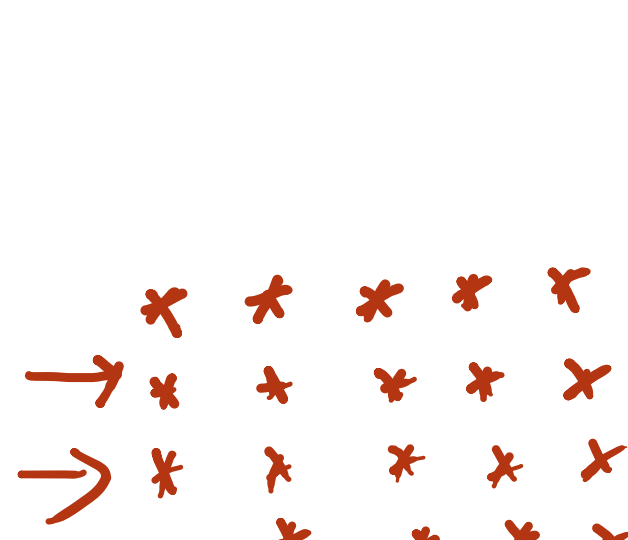
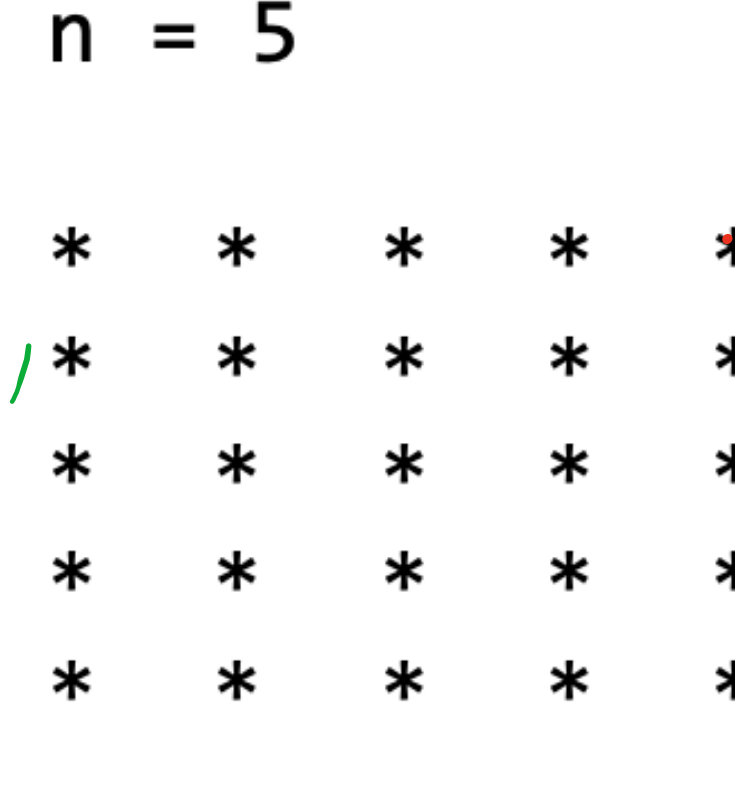
```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int n = 5;
    int star = n;
    while (i <= star) {
        System.out.print("* ");
        i++;
    }
}
```



n=5
Row -> 1 to n

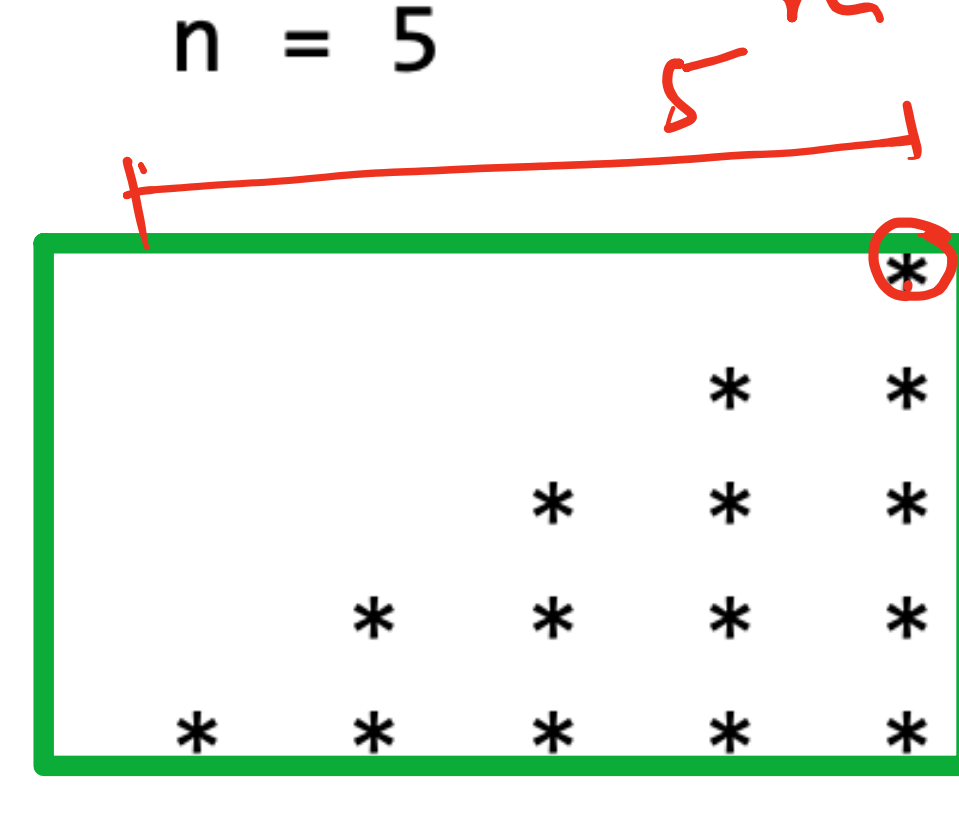
i = 1 2 3 4 5 6

Ques 1:
n = 5



```
Row=x Star=n
while (Row <= n) {
    // star
    int i = 1;
    while (i <= star) {
        System.out.print(" ");
        i++;
    }
    // next line preparation
    System.out.println();
    Row++;
}
```

Ques 4:
n = 5

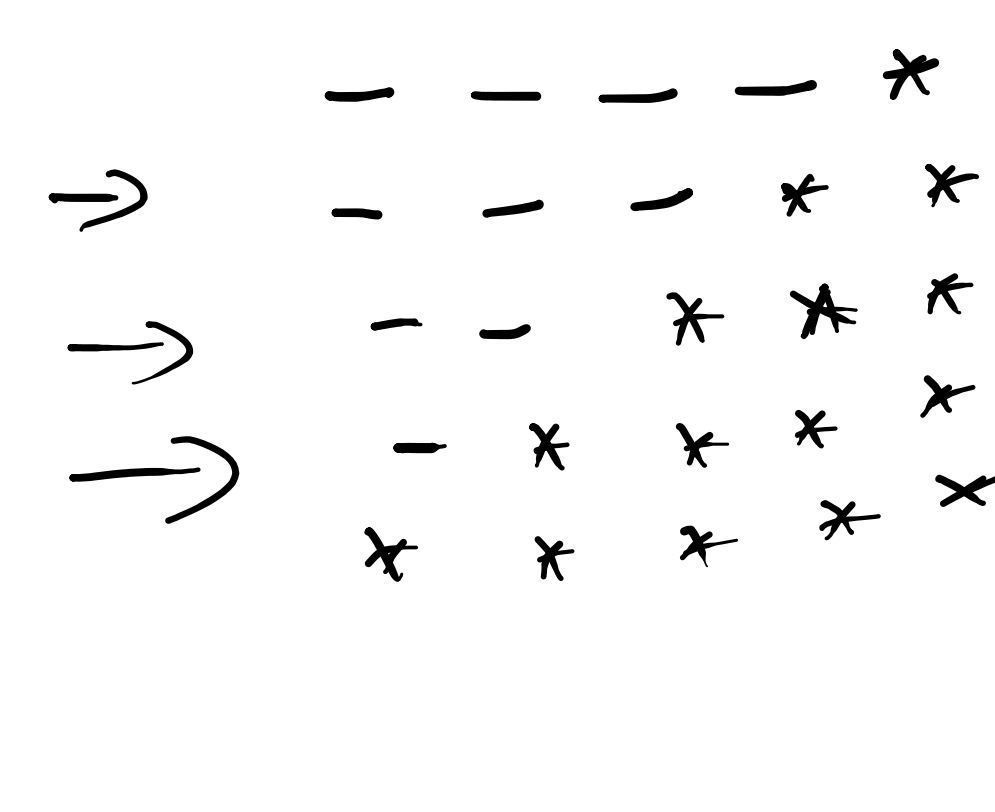
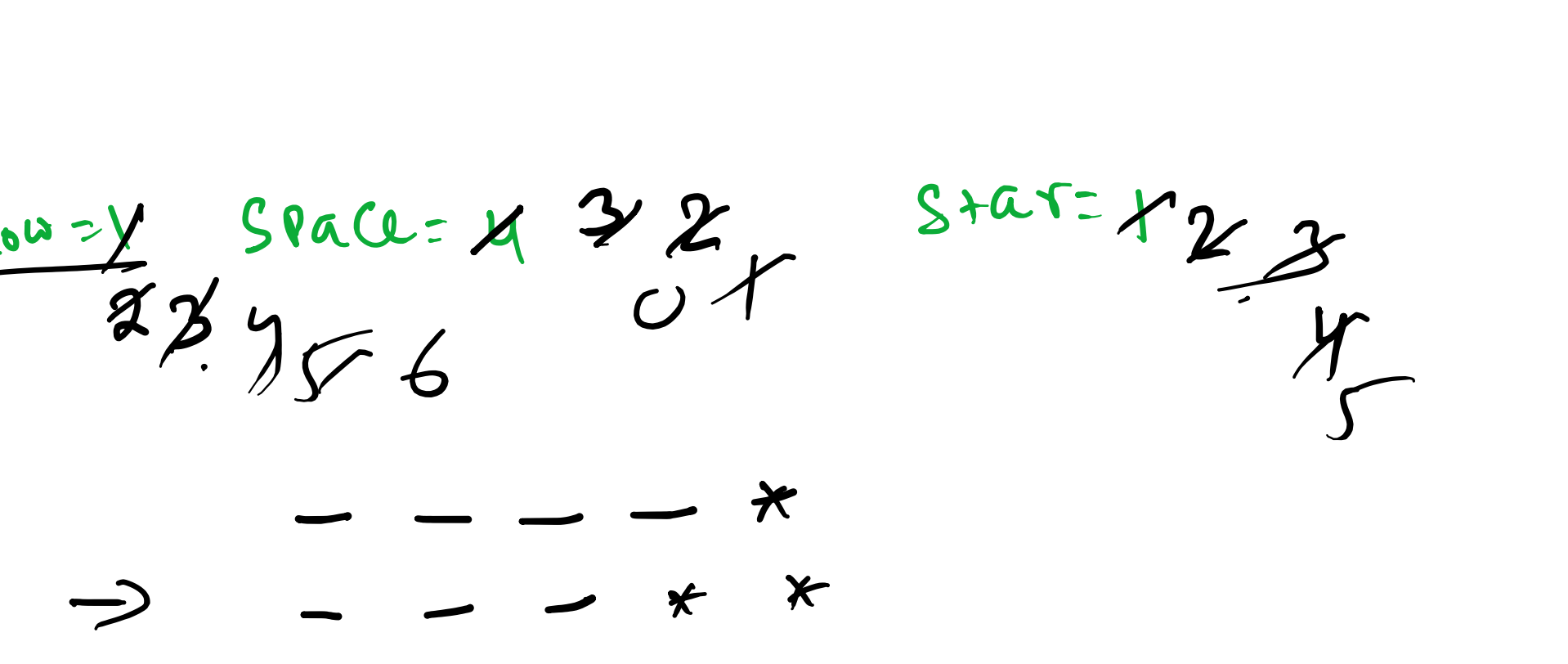


n=5

Row=1 Space=N-1 Star=1

```
while (Row <= n) {
    // Space
    int i = 1;
    while (i <= Space) {
        System.out.print(" ");
        i++;
    }
    // star
    int j = 1;
    while (j <= star) {
        System.out.print("* ");
        j++;
    }
    // next line prep
    Space--;
    star++;
    Row++;
}
```

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int n = 5;
    int star = 1;
    int row = 1;
    while (row <= n) {
        // space
        int i = 1;
        while (i <= space) {
            System.out.print(" ");
            i++;
        }
        // star
        int j = 1;
        while (j <= star) {
            System.out.print("* ");
            j++;
        }
        // next line prep
        System.out.println();
        space--;
        star++;
        row++;
    }
}
```



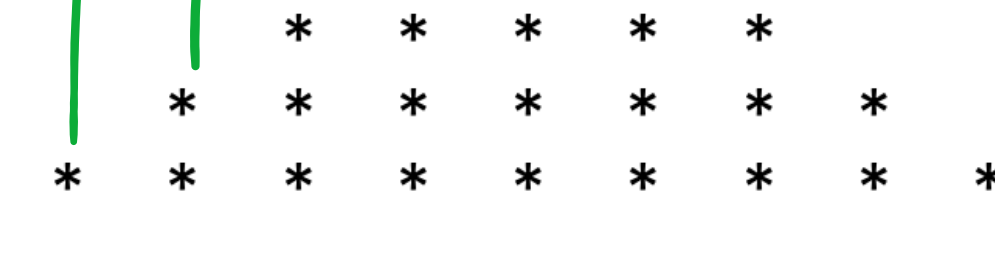
Ques 6:
n = 5



Row=1 Space=0 Star=n

```
while (Row <= n) {
    // space
    // star
    // next line prep
    Space++;
    Star--;
    Row++;
}
```

Ques 9:
n = 5

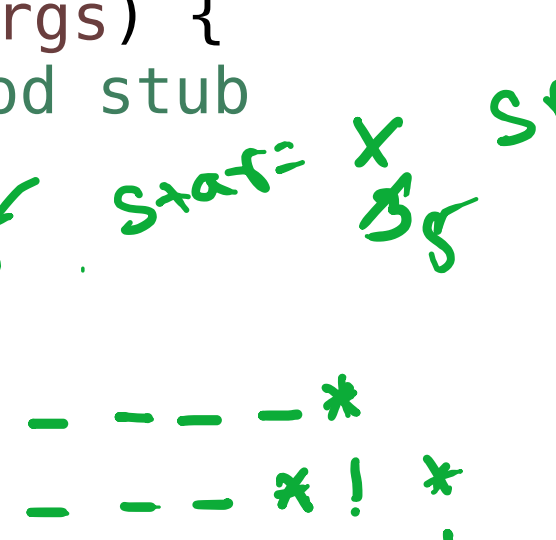


Row=1 -> n Space=n-1 Star=1

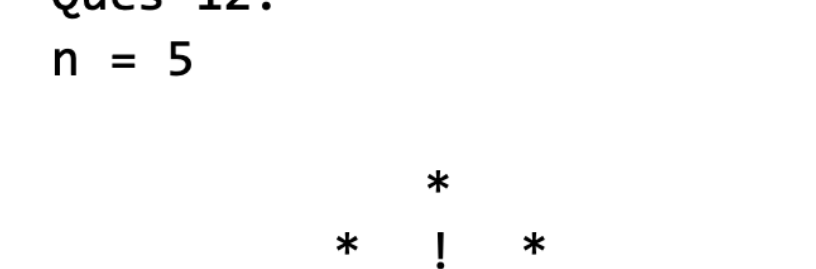
```
while (Row <= n) {
    // space
    // star
    // next line prep
    Space--;
    Star++;
    Row++;
}
```

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int n = 5;
    int star = 1;
    int row = 1;
    while (row <= n) {
        // space
        int i = 1;
        while (i <= space) {
            System.out.print(" ");
            i++;
        }
        // star
        int j = 1;
        while (j <= star) {
            System.out.print("* ");
            j++;
        }
        // next line prep
        System.out.println();
        space--;
        star += 2;
        row++;
    }
}
```

Row=x Star=x Space=x



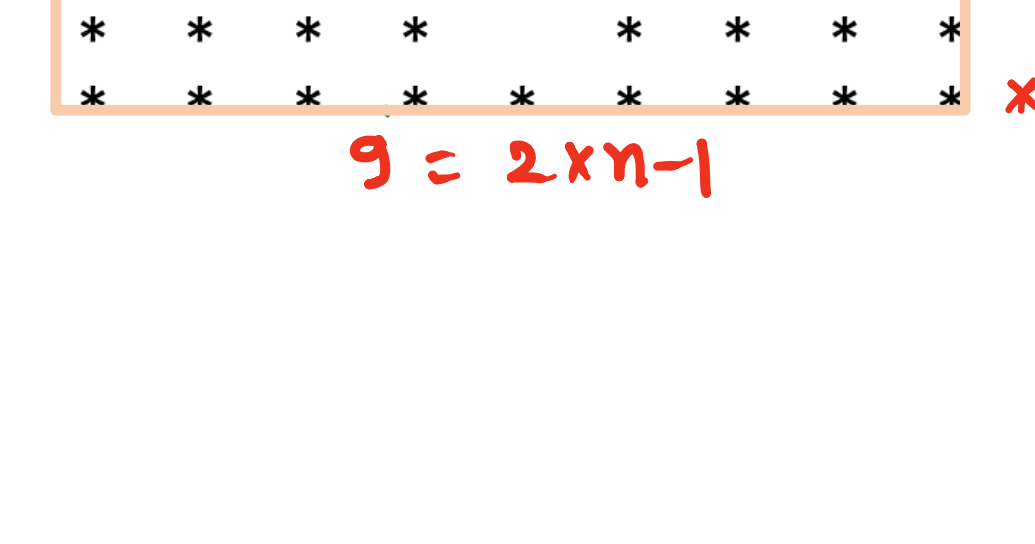
Ques 12:
n = 5



j=1, j=2, j=3, j=4, j=5

$$2 \times n - 1 - 2 = 2 \times n - 3$$

Ques 21:
n = 5



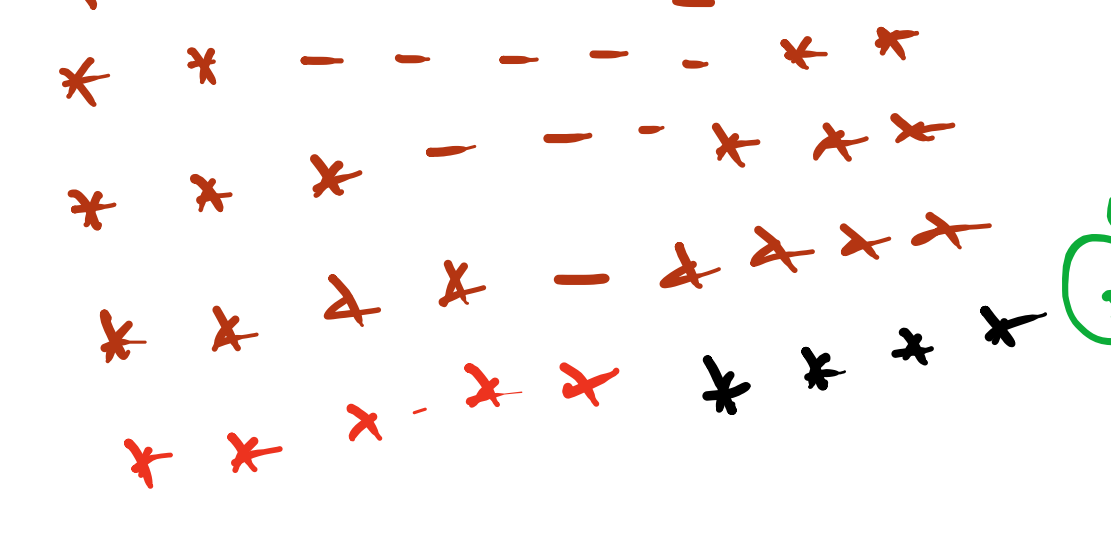
n=5

Row=1 int star=1 Space=n-3

```
while (Row <= n) {
    // star
    // space
    // next line prep
}
```

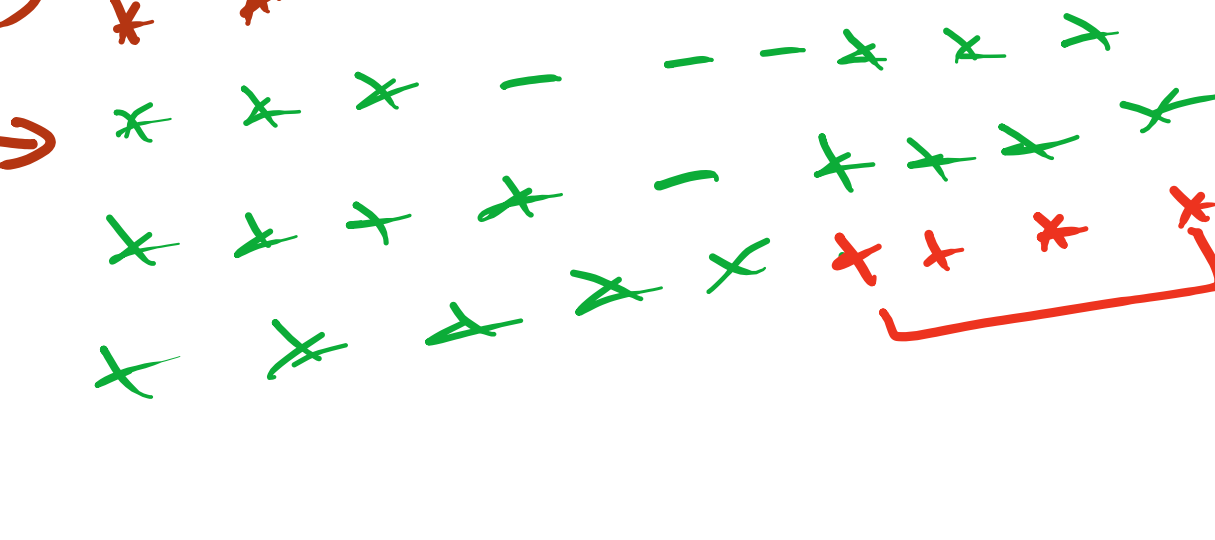
```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int n = 5;
    int star = 1;
    int row = 1;
    while (row <= n) {
        // star
        int i = 1;
        while (i <= star) {
            System.out.print("* ");
            i++;
        }
        // space
        int j = 1;
        while (j <= space) {
            System.out.print(" ");
            j++;
        }
        // star
        int k = 1;
        while (k <= star) {
            System.out.print("* ");
            k++;
        }
        // next line prep
        System.out.println();
        space += 2;
        star += 1;
        row++;
    }
}
```

Row=x Star=x Space=x

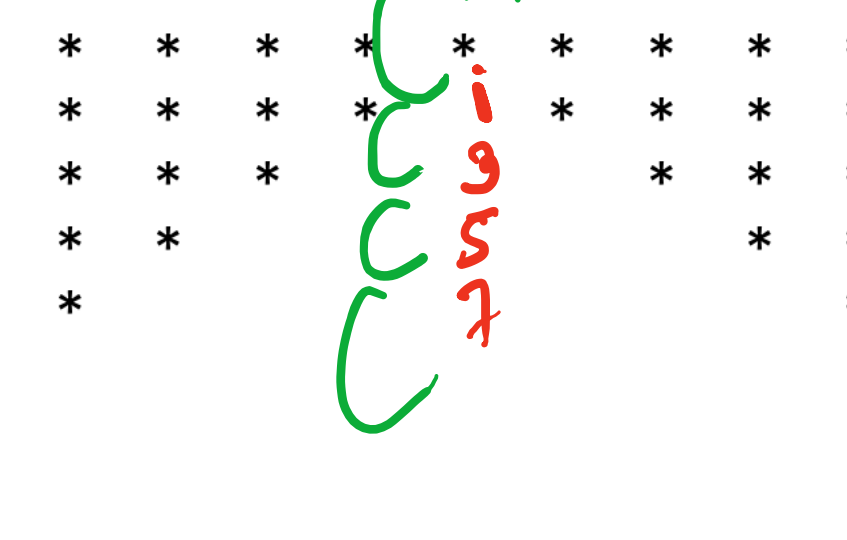


```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int n = 5;
    int star = 1;
    int row = 1;
    while (row <= n) {
        // star
        int i = 1;
        while (i <= star) {
            System.out.print("* ");
            i++;
        }
        // space
        int j = 1;
        while (j <= space) {
            System.out.print(" ");
            j++;
        }
        // star
        int k = 1;
        while (k <= star) {
            System.out.print("* ");
            k++;
        }
        // next line prep
        System.out.println();
        space += 2;
        star += 1;
        row++;
    }
}
```

N=5 Row=x Star=x Space=x



Ques 22:
n = 5



Row=1 Space=1 Star=n

```
while (Row <= n) {
    // star
    // space
    // next line prep
}
```