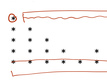
Ques 21:
n = 5



```
while (row <= n) {
    // star
    int i = 1;
    while (i <= star) {
        System.out.print("* ");
        i++;
    }
    while (i <= space) {
        System.out.print(" ");
        i++;
    }
    int s = 1;
    if (row==n)
        s=2;

    while (s <= star) {
        System.out.print("* ");
        s++;
    }
    // next row perp
    System.out.println();
    row++;
    star++;
    space = space - 2;
}
```

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int n = 5;
    int row = 1;
    int star = 1;
    int space = 2 * n - 3;
    while (row <= n) {
        // star
        int i = 1;
        while (i <= star) {
            System.out.print("* ");
            i++;
        }
        while (i <= space) {
            System.out.print("  ");
            i++;
        }
        int s = 1;
        if (row==n)
            s=2;

        while (s <= star) {
            System.out.print("* ");
            s++;
        }
        // next row perp
        System.out.println();
        row++;
        star++;
        space = space - 2;
    }
}
```

Ques 22:
n = 5

Ques 13:
n = 5


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

Ques 13:
n = 5

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int row = 1;
    int star = 1;
    while (row <= 2 * n - 1) {
        // star
        int i = 1;
        while (i <= star) {
            System.out.print("* ");
            i++;
        }
        // mirroring
        if (row <= n) {
            star++;
        } else {
            star--;
        }

        // next row prep
        System.out.println();
        row++;
    }
}
```

Ques 15:
n = 5

Ques 19:
n = 7

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int row = 1;
    int star = n / 2 + 1;
    int space = 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++;
        }
        // mirror
        if (row <= n / 2) {
            star--;
            space += 2;
        } else {
            star++;
            space -= 2;
        }
        // Next row ki prep
        System.out.println();
        row++;
    }
}
```

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

        // star
        int val=1;
        int j = 1;
        while (j <= star) {
            System.out.print(val+" ");
            val++;
            j++;
        }

        // next row prep
        System.out.println();
        row++;
        space--;
        star = star + 2;
    }
```

Ques 27:
n = 5

```
public static void main(String[] args) {
    int n = 5;
    int row = 1;
    int star = 1;
    int space = n - 1;
    while (row <= n) {
        // space
        int i = 1;
        while (i <= space) {
            System.out.print("  ");
            i++;
        }

        // star
        int val=1;
        int j = 1;
        while (j <= star) {
            System.out.print(val+" ");
            if (j <= star / 2) {
                val++;
            } else {
                val--;
            }
            j++;
        }

        System.out.println();
        row++;
        space--;
        star = star + 2;
    }
```