

★ Loops

- ① for
- ② while
- ③ do-while
- ④ foreach

Ques 1:
n = 5

```

* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
    
```

star = 5, i = 1 2 3 4 5 6

* * * * *

```

while(i <= star) {
    cout << '*';
    i++;
}
    
```

Ques 1:
n = 5

```

* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
    
```

int n = 5;

int star = n;

int row = 1 2 3 4 5 6; i = 1 2 3 4 5 6

```

while(row <= n) {
    // star
    int i = 1;
    while(i <= star) {
        cout << '*';
        i++;
    }
    row++;
    cout << '\n';
}
    
```

```

→ * * * * *
→ * * * * *
→ * * * * *
→ * * * * *
→ * * * * *
    
```

Ques 2:
n = 5

```

*
* *
* * *
* * * *
* * * * *
    
```

type of task → ① star

int n = 5

int star = 1

int row = 1

```

while(row <= n) {
    int i = 1;
    while(i <= star) {
        cout << '*';
        i++;
    }
    row++;
    star++;
    cout << '\n';
}
    
```

row = 1 2 3 4 5 6

star = 1 2 3 4 5 6

i = 1

star print

```

→ *
→ * *
→ * * *
→ * * * *
→ * * * * *
    
```

Ques 4:
n = 5

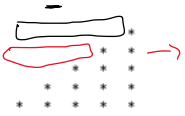
```

*
* *
* * *
* * * *
* * * * *
    
```

type of task → space
→ star

int n = 5

int space = n - 1



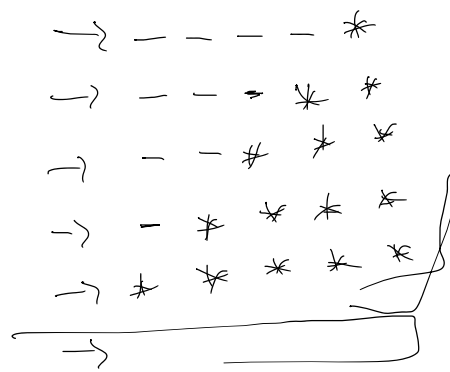
```
int n = 5
int space = n - 1
int star = 1
int row = 1
```

```
while (row <= n) {
```

```
    // space
    int i = 1
    while (i <= space) {
        cout << " ";
        i++;
    }
    // star
```

```
    int j = 1
    while (j <= star) {
        cout << "*";
        j++;
    }
    space--
    star++
    row++

    cout << endl
}
```



```
row = 1
space = 4
star = 1
```

2 3 4 5 6

7 8 9 10 11

12 13 14 15 16