■ Star Patterns Quick Revision Notes

1. Full Square Pattern

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

Logic: for (let j = 1; j <= n; j++) row += '*';
Explanation: Prints n stars in each row for n rows.

2. Hollow Square Pattern

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

Logic: if (i == 1 || i == n || j == 1 || j == n) row += '*'; else row += ' ';
Explanation: Stars only at borders; spaces inside.

3. Left Triangle

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

Logic: for (let j = 1; j <= i; j++) row += '*';
Explanation: Stars increase each row.

4. Inverted Left Triangle

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

Logic: for (let j = 1; j <= n - i + 1; j++) row += '*';
Explanation: Stars decrease each row.

5. Right Triangle

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

Logic: Add spaces: for (let j = 1; j <= n - i; j++) row += ' '; then stars.
Explanation: Aligns stars to the right.

6. Inverted Right Triangle

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

Logic: for (let j = 1; j <= i - 1; j++) row += ' '; then stars.
Explanation: Decreases stars with increasing spaces.

7. Full Pyramid

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

Logic: for (let k = 1; k <= 2*i-1; k++) row += '*';
Explanation: Stars form a symmetric pyramid.

8. Hollow Pyramid

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

Logic: if (k == 1 || k == 2*i-1 || i == n) row += '*'; else row += ' ';
Explanation: Hollow inside, stars on edges.

9. Diamond Pattern

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

Logic: Upper pyramid + Inverted pyramid logic combined.
Explanation: Combination of full and inverted pyramid.

10. Hollow Diamond

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

Logic: Combine hollow pyramid + inverted hollow pyramid.
Explanation: Forms diamond shape with hollow center.

11. Double Triangle (Side-by-Side)

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

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

Logic: row += '*' + ' '*(n-i) + '*';
Explanation: Two triangles mirrored horizontally.

12. Inverted Double Triangle

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

Logic: Similar to double triangle but loops reversed.
Explanation: Inverted version of side-by-side pattern.