**Diagram:**

**1 2 3 4**

**5**

**Pattern:**

* T=t3+1
* To get the number of toothpicks in the term, multiply the term number by three, and then add one.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Term # | 1 | 2 | 3 | 4 | 5 |
| Triangles | 4 | 7 | 10 | 13 | 16 |

* T = t 3 + 1

Constant terms

Numerical coefficient

**How many toothpicks needed to make 51 squares?**

You would need 154 toothpicks

**Why?**

Because the amount of toothpicks to make the squares depends on the term number. The amount of squares in each term is the same number as the term number itself. So, to find out how many toothpicks needed to make 51 squares, you simply need to find out how many toothpicks there would be in the 51st term.

51x3=153+1=154