

## Assertion

Consider the following 6 squares in statu nascendi, and keep in mind the important remarks in paragraph 4.1. In all squares the black pattern (black = 3) and the third row have been filled in.

|   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |  |   |   |   |   |   |   |   |   |
|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|--|---|---|---|---|---|---|---|---|
| 3 |   |   |   |   |  |   |   |   | 3 |   | 3 |   |   |   |   |   |  | 3 |   | 3 |   |   |  |   |   |   |   |   | 3 |   |   |
|   | 3 |   |   |   |  |   |   |   | 3 |   |   | 3 |   |   |   |   |  |   | 3 |   | 3 |   |  |   |   |   |   |   |   |   | 3 |
| 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |   | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |   | 1 |   |
|   |   |   | 3 |   |  | 3 |   |   |   |   |   |   |   | 3 | 3 |   |  |   |   |   |   |   |  | 3 |   |   | 3 |   |   |   |   |
|   |   |   | 3 | 3 |  |   |   |   |   |   |   |   | 3 |   |   | 3 |  |   |   |   |   |   |  |   | 3 | 3 |   |   |   |   |   |

You recognize pattern 1 and pattern 6 in all its possible orientations. Now ask yourself: *when I have to complete all these squares, will the one situation differ from the other, as far as the number of possible squares is concerned?*

*My answer is: All 6 situations will give rise to exactly the same amounts of possible squares. (And if this assertion is wrong, this will be turned out soon enough.)*

This leads immediately to my assertion that per black *oriented* pattern the total contribution of squares to the well-known number of 1344 must be equal. Which means that group 1 contributes  $1344/12 = 112$  squares to the 12345-mode, as does also group 2, 3, and 4. And which also means that group 5 and 6 contribute 224 squares, and that group 7 contributes 448 squares.