

An example of how to find the contribution of a square to the 12345-mode

Consider square LS103, composition 1, 8, 14, 18, 18, see table 3:

|   |   |   |   |   |
|---|---|---|---|---|
| O | ○ | ○ | ○ | ○ |
| ○ | O | ○ | ○ | ○ |
| ○ | ○ | O | ○ | ○ |
| ○ | ○ | ○ | O | ○ |
| ○ | ○ | ○ | ○ | O |

And write the square out with the numbers 1 2 3 4 5 in its 8 positions of the 12345-mode ( 3 times rotate 90 degrees clockwise, then upside down, and rotate again 3 times). The following 12345-mode contributions will be found:

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

upside down..

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

Square 1 is equal to square 8, 2 is equal to 5, 3 to 6, and 4 to 7. The contribution of square LS103 to the 12345-mode is 4. All squares with one axis of symmetry do that, squares with two axes of symmetry give a contribution of 2, and squares without symmetry give 8.