

- 13.1. Find the number of tilings of a rectangle with 3×1 tiles.
- 13.2. Find the number of tilings of a rectangle $n \times m$ with 2×2 corners (a 2×2 square without one cell).
- 13.3. Find the number of tilings of a regular hexagon with side n by rhombuses with side 1.
- 13.4. Given a chessboard $n \times m$, some cells of which have been removed. Place the maximum number of kings on the board so that they do not attack each other.
- 13.5. The same problem, but with knights instead of kings.
- 13.6. There is a rectangle $n \times m$. You need to find the number of ways to paint some cells black in such a way that all black cells form a connected area.
- 13.7. There is a rectangle $n \times m$. You need to find the number of ways to build Hamiltonian cycle of the cells of rectangle.
- 13.8. There are n integers a_i . You need to split them into k sets in such a way that the sum of numbers in i -th set is b_i .