1. Suppose a standard $8 \times 8$ chessboard has two diagonally opposite corners removed. Is it possible to place 31 dominoes of size $2 \times 1$ so as to cover all of these squares?

2. There are five possible tetrominoes


Is it possible to form a rectangle with the five tetrominoes (one of each)?
3. Can a $10 \times 10$ chessboard be covered by 25 straight tetrominoes?
4. Can an $8 \times 8$ chess board be covered by 15 square tetrominoes and one straight tetrominoes?
5. Consider an $n \times n$ chessboard with the four corners removed. For which values of $n$ can you cover the board with $L$-tetrominoes?
6. Divide these shapes into 4 identical pieces.

7. Divide this shape into 2 identical pieces:

8. Can you divide a square to 5 identical pieces?
9. A $6 \times 6$ square is tiled by dominoes. Then it always has a fault-line, that is, a line cutting the square without cutting any dominoes.

