Problem 1

No hint.

Problem 2

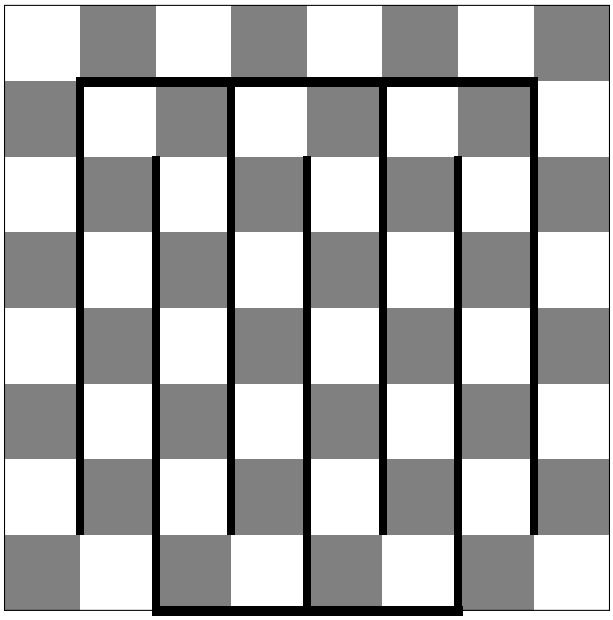
When a square's been removed, the number of remaining squares is odd.

Problem 3

Start by covering the chessboard as simply as you can, then chose two adjacent squares to remove and see whaty you can do.

Problem 4

Considered the chessboard as a closed path, following this figure :

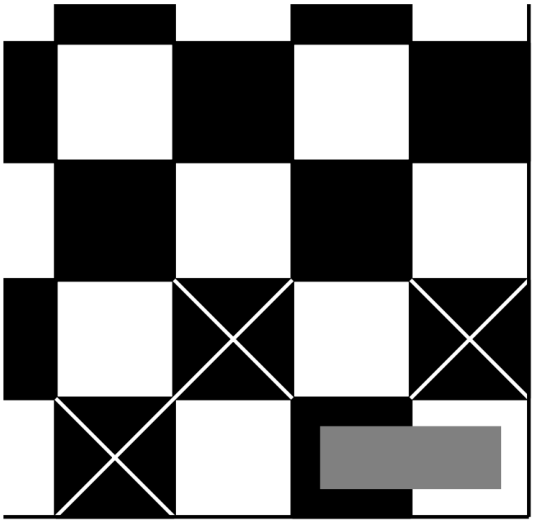


Problem 5

Here, all you can do is find a counterexample.

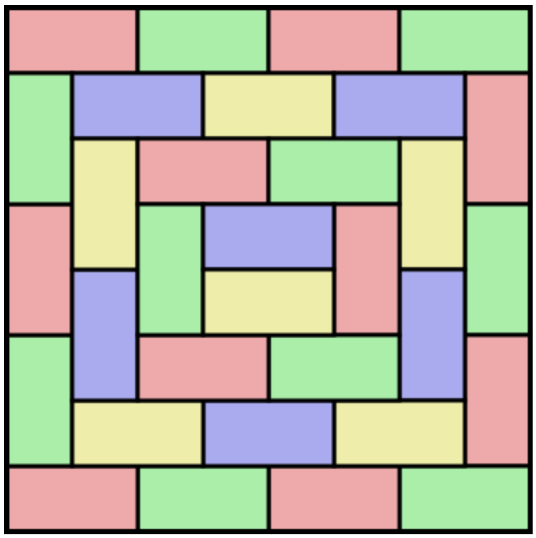
Problem 6

Have a look at this :



Problem 7

have a look at this :



Problem 8

Consider one of the seven lines that separates two adjacent columns ; it divides the board into a left and a right part. We observe that

1. because the column length is even, each column, and hence the left part, contains the same amount of black squares and white squares ;
2. because a domino consists of a blak and a white square, the dominoes entirely to the left of the line amount for an equal number of black and white squares.

This should help.