



Polyominoes

Question 1

Which rectangles can be tiled by the complete set of twelve pentominoes? Explain why your answer is correct.

(Remember: each pentomino may be turned around or turned over.)

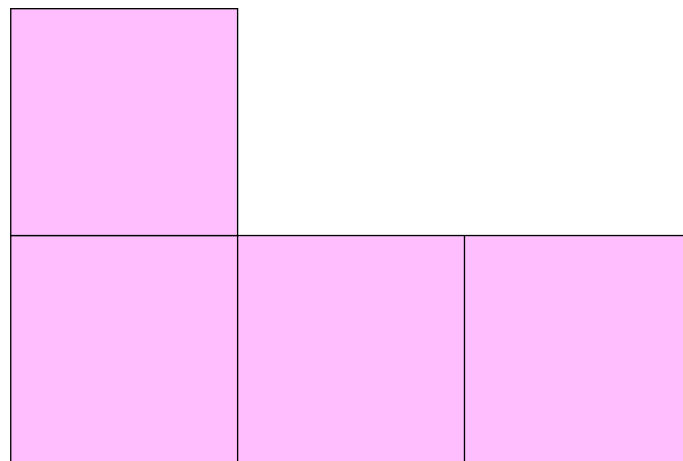
Question 2

A hexomino is a polyomino made from six squares. There are 35 different hexominoes.

How many of the hexominoes have exactly one line of symmetry? Explain why your answer is correct.

Question 3

Prove that it is *not* possible to tile an 8×8 square with 15 copies of the L-tetromino shown and one copy of a 2×2 square tetromino.



L tetromino

(Remember: each L-tetromino may be turned around or turned over.)