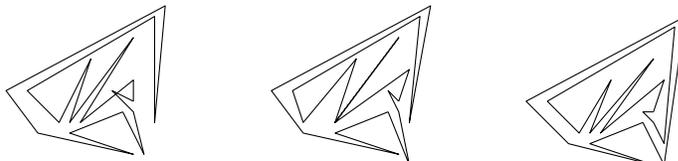


Comprehension questions

The questions in these sections are intended to be a fairly direct test of your understanding. If you have mastered the material, most of them should not be difficult. Feel free to consult the lecture notes while answering them.

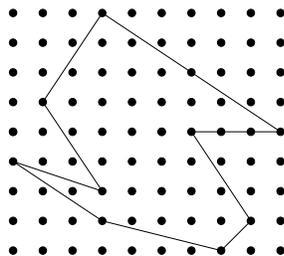
PROBLEM 1.1. *Of the following three figures, which is a polygon and which is not?*



PROBLEM 1.2. *Give an explicit (spelling out each step, including exactly where to cut) cut-and-paste instruction which transforms a 1×7 rectangle into a square.*

PROBLEM 1.3. *Take an equilateral triangle, and another triangle of the same shape and size, rotated by 180 degrees. Can one cut-and-paste transform one into the other, using only translations in our scissors congruence? (If so, explain the steps; if not, explain why not.)*

PROBLEM 1.4. *Compute the Hadwiger invariants of (the dots are the integer grid in the plane)*



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18.900 Geometry and Topology in the Plane
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