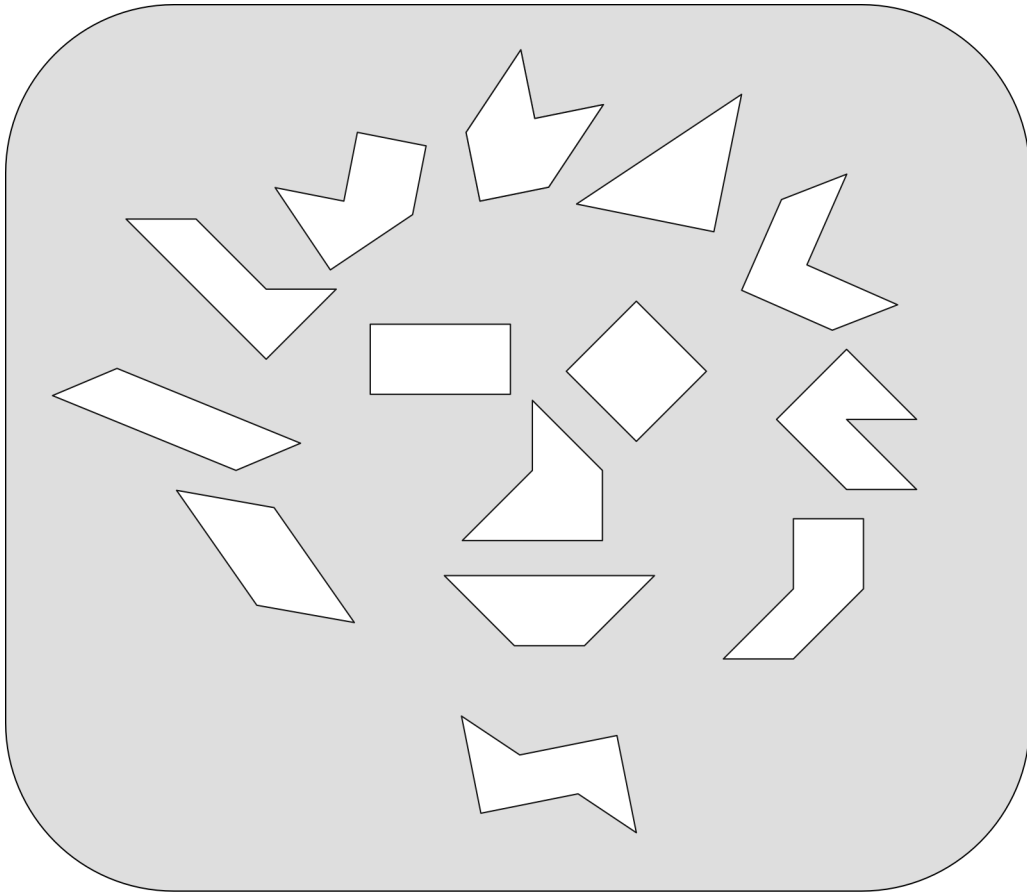


SUPERTANGRAM PUZZLES



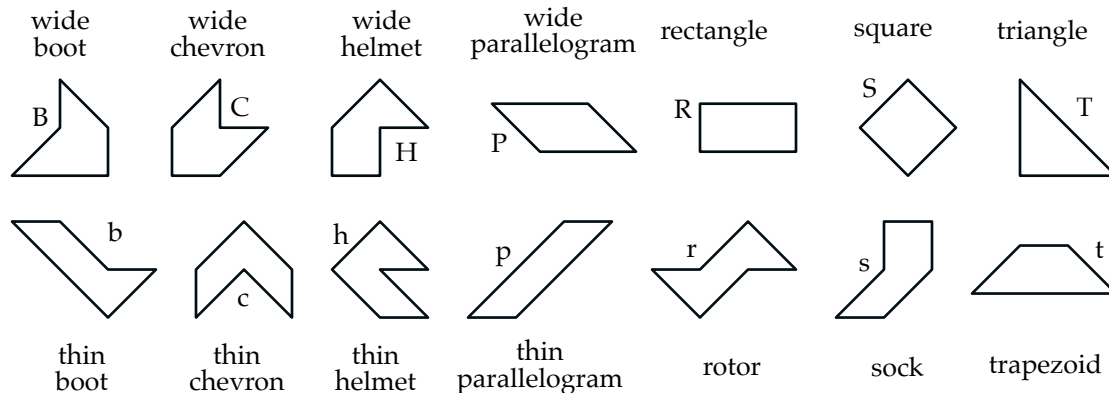
Henri Picciotto

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INTRODUCTION

This booklet is the fifth in a series. Some of the puzzles herein are more challenging than the ones in the previous four, which you might want to tackle first. All can be downloaded freely for your non-commercial use at mathed.page/puzzles/supertangrams/st-books.html, where you can also get links to some context and background, and information on how to order plastic supertangrams.

Supertangrams are the shapes you get by joining four isosceles right triangles edge-to-edge.



When checking if a set is complete, it's helpful to remember the mnemonic BCHPRST (BeaCh PReSTo, or BaCH PRouST.)

The puzzles are self-explanatory: cover each figure with supertangrams. (If there is more than one figure on a page, all of them must be covered at the same time.) They are organized in four sets. Within each set, as much as possible, they are organized from easiest to most challenging. The sets themselves are also sequenced in order of difficulty.

Set A consists of representational figures, in the style of the well-known tangram figures. All of them appeared, pre-solved, in *SuperTangrams for Beginners, Book 1*. You or your students can create your own representational puzzles, and send them to me. If I receive enough of those, I will share them on the website and credit the creators.

Sets B and C consist of symmetric convex figures that did not appear in the previous books.

The puzzles in Set D require the use of all 14 pieces, and thus are the most difficult in any of the supertangram books. I discovered the last two “manually” in 1989. Miroslav Richer later did a computer search, and found the other six. He believes those eight are the only 14-piece convex figures.

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SUPERTANGRAM PUZZLES

Use this checklist to keep track of which puzzles you have solved:

Set A

1 2 3 4 5 6 7 8

Set B

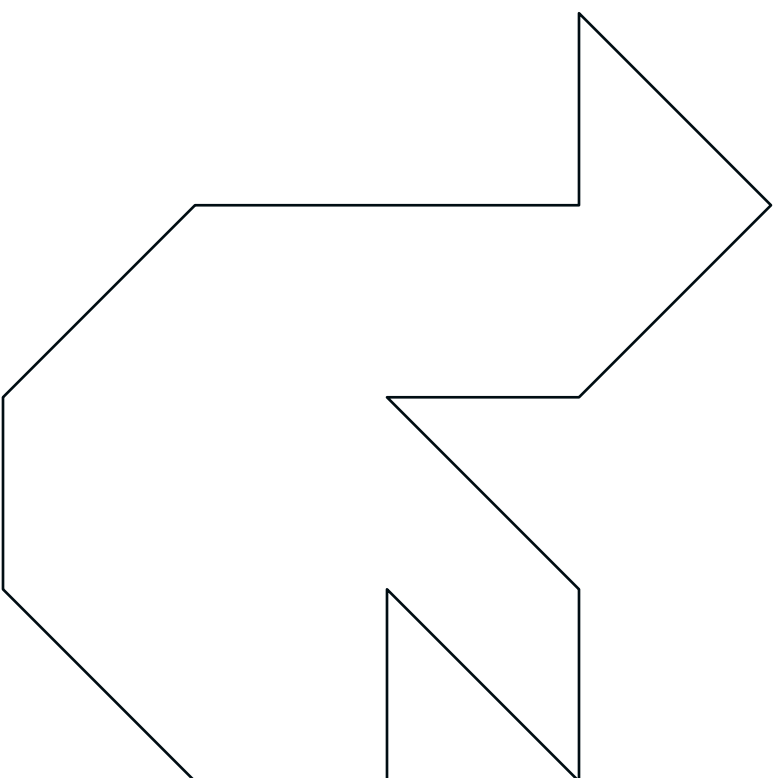
1 2 3 4 5 6 7 8

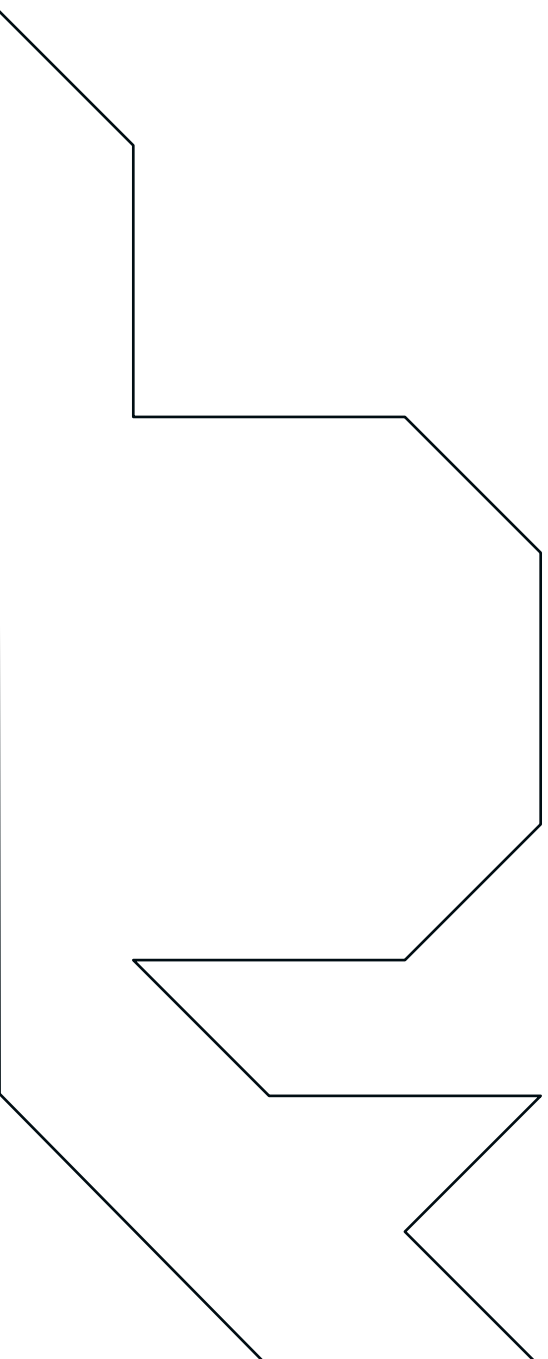
Set C

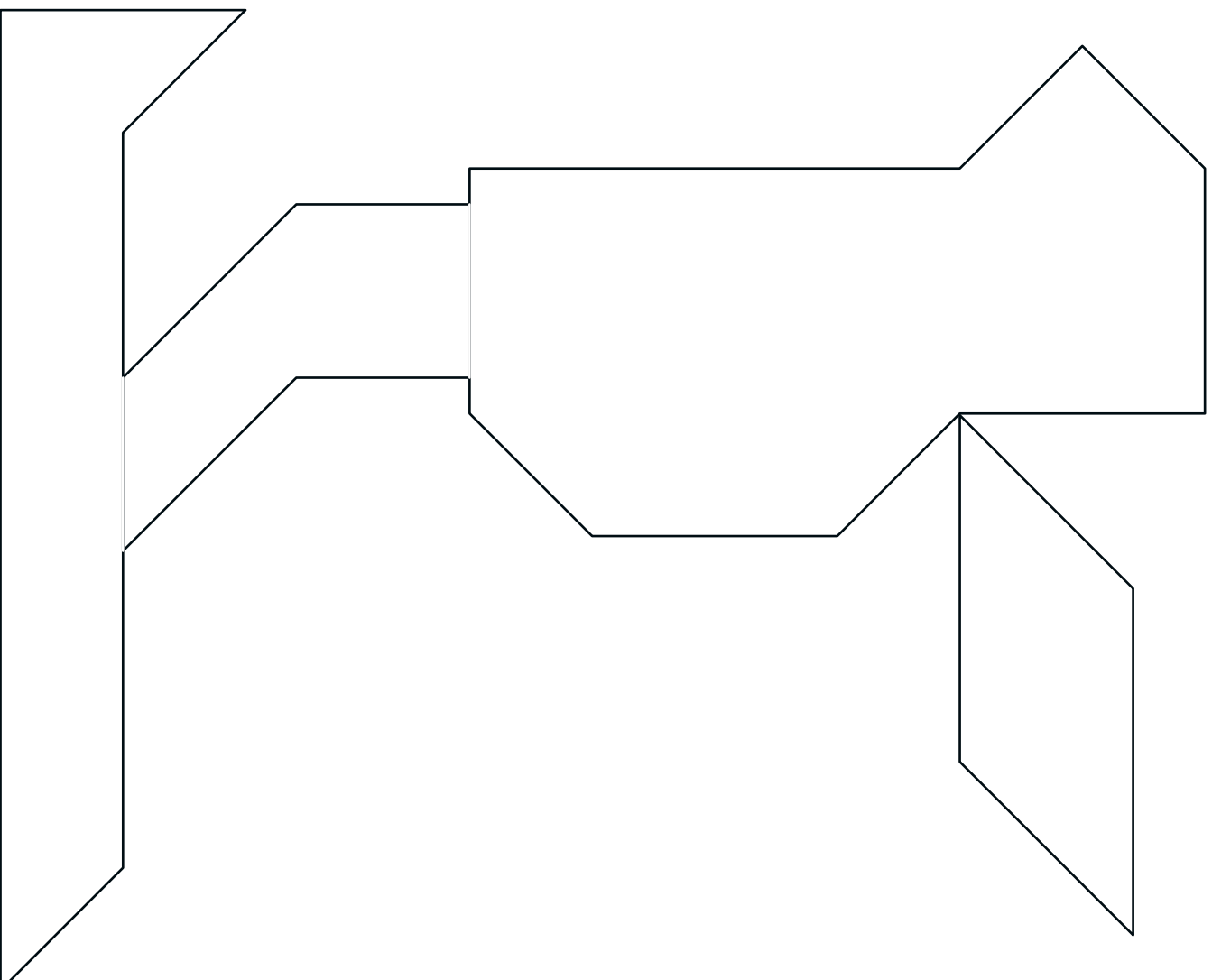
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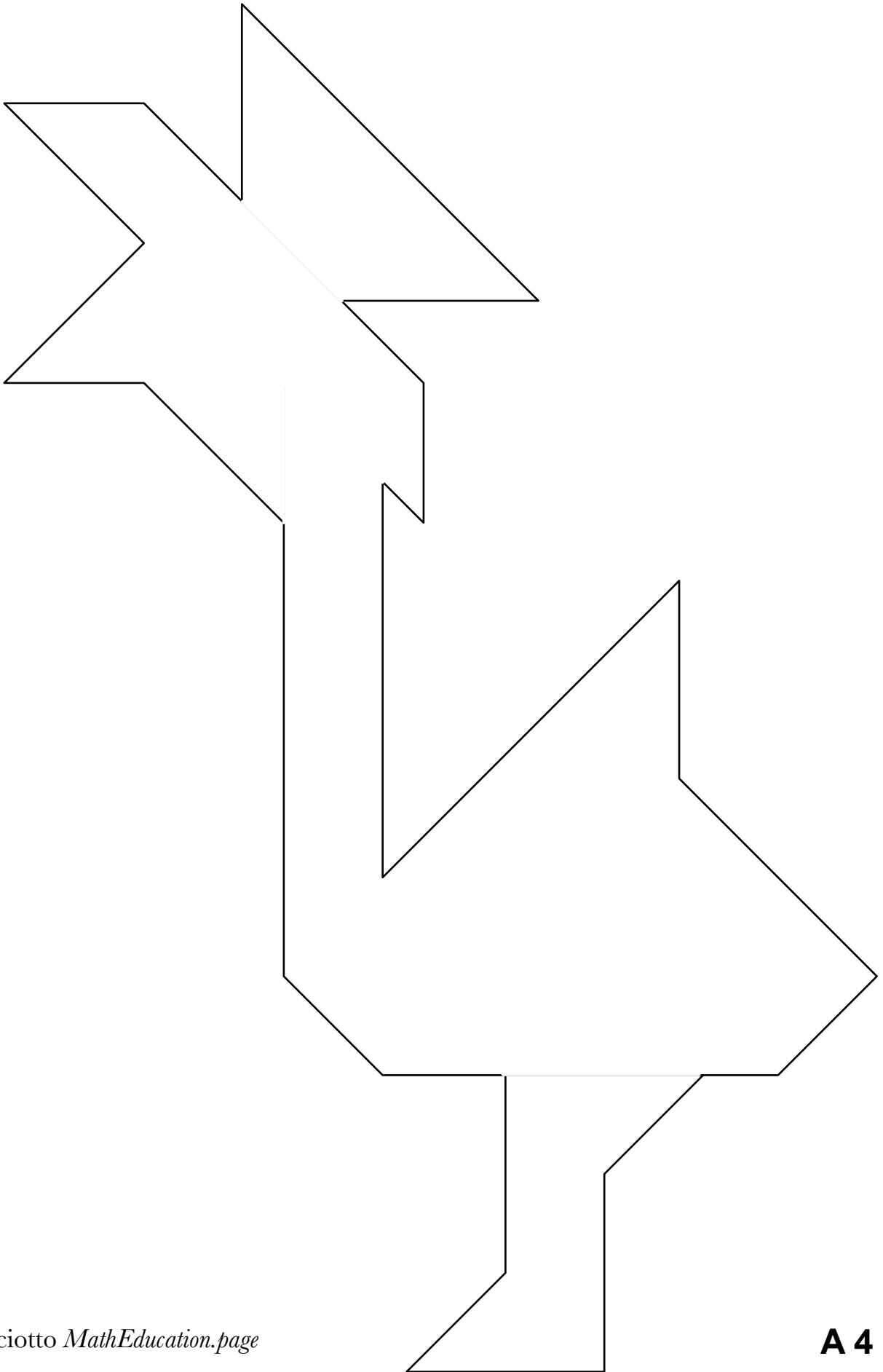
Set D

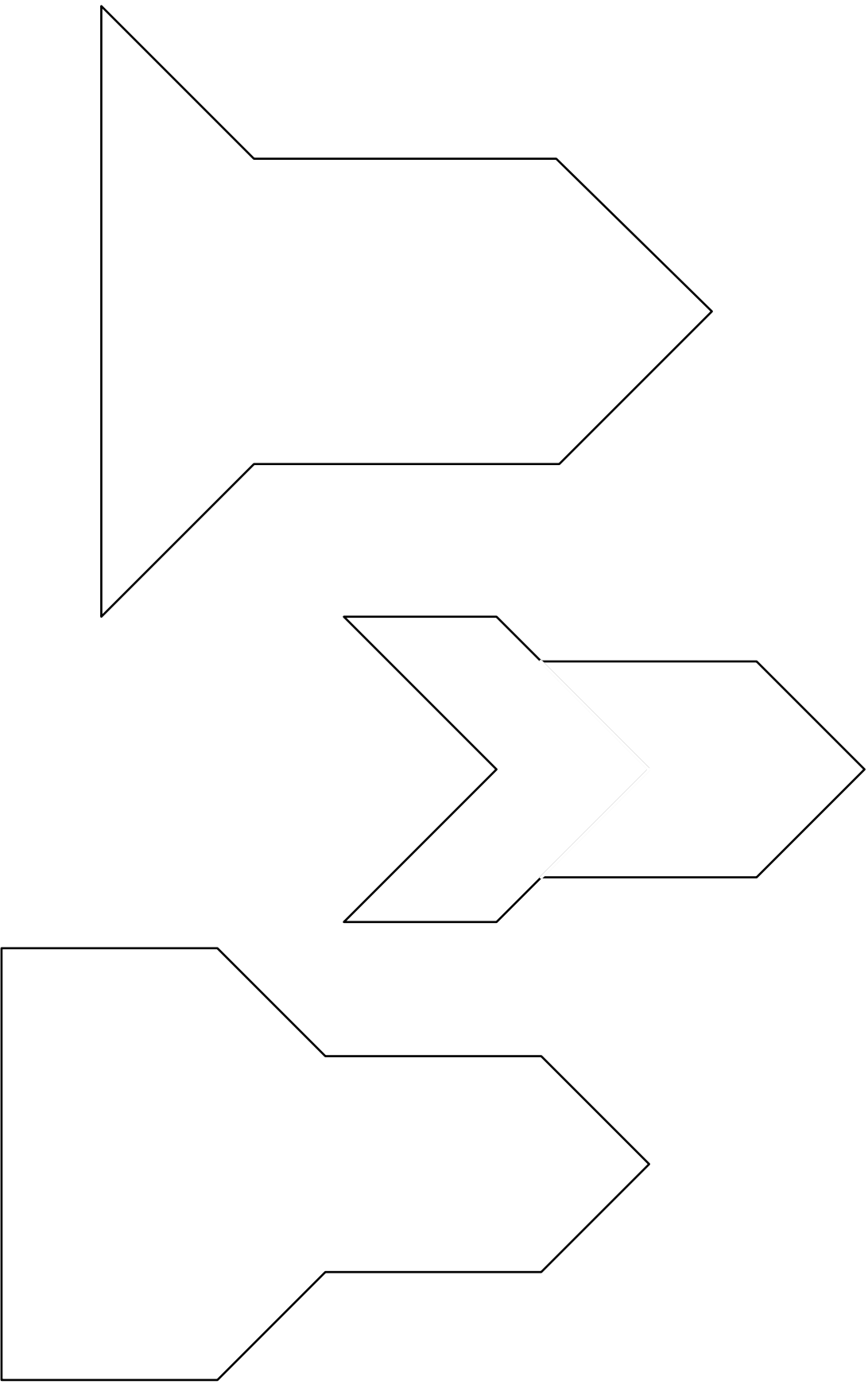
1 2 3 4 5 6 7 8

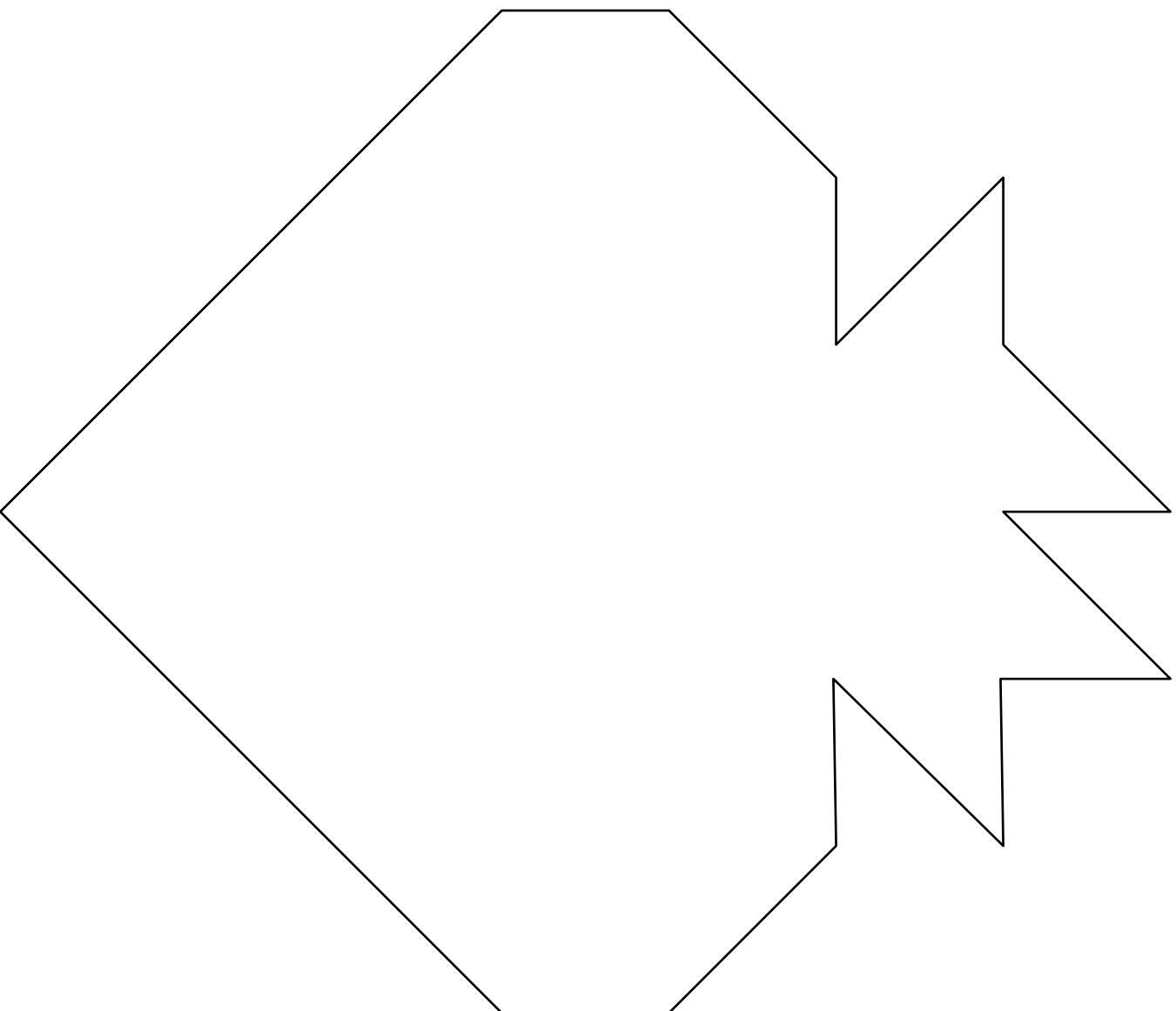


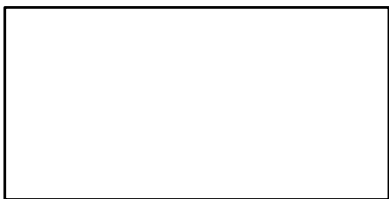
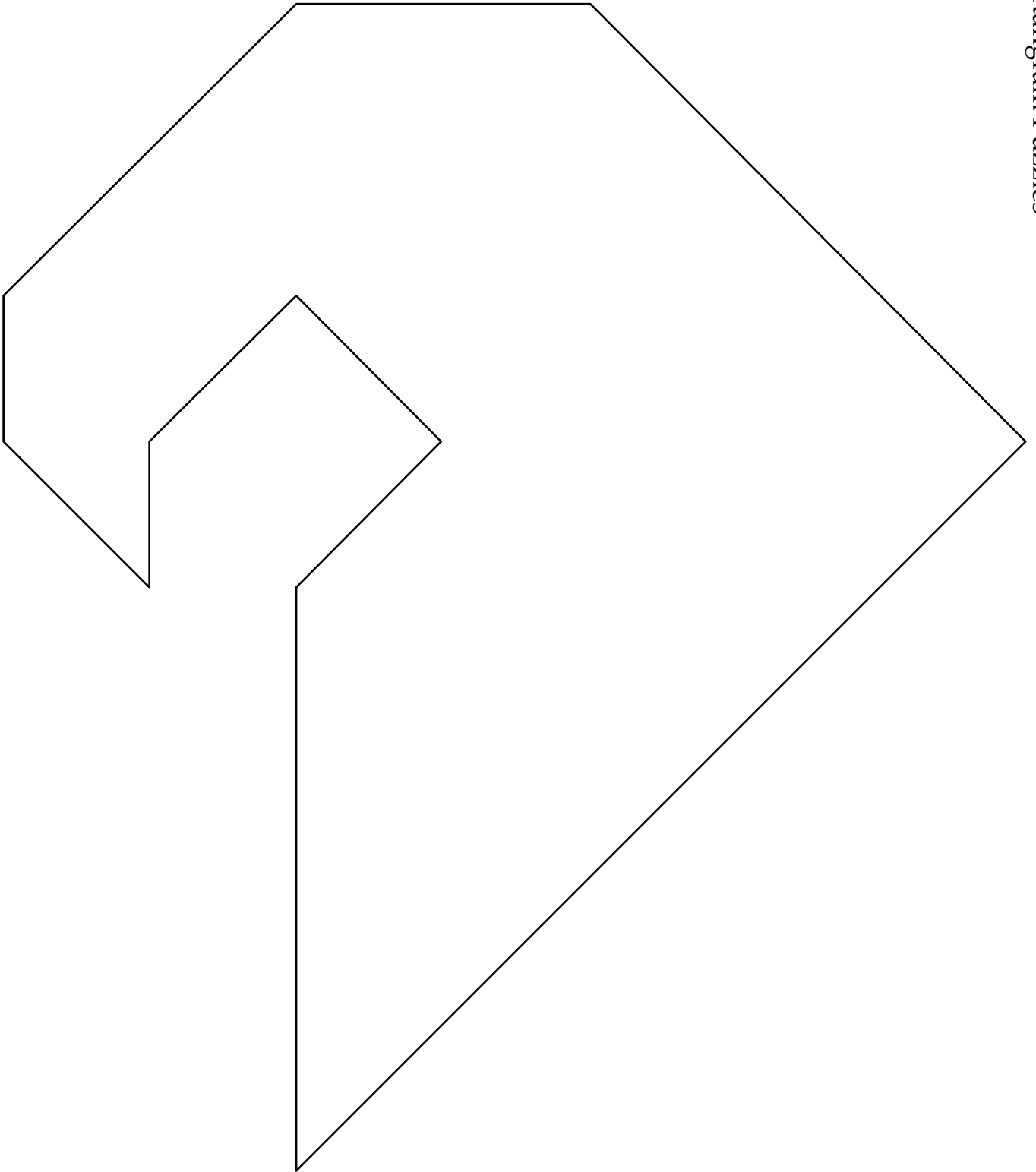






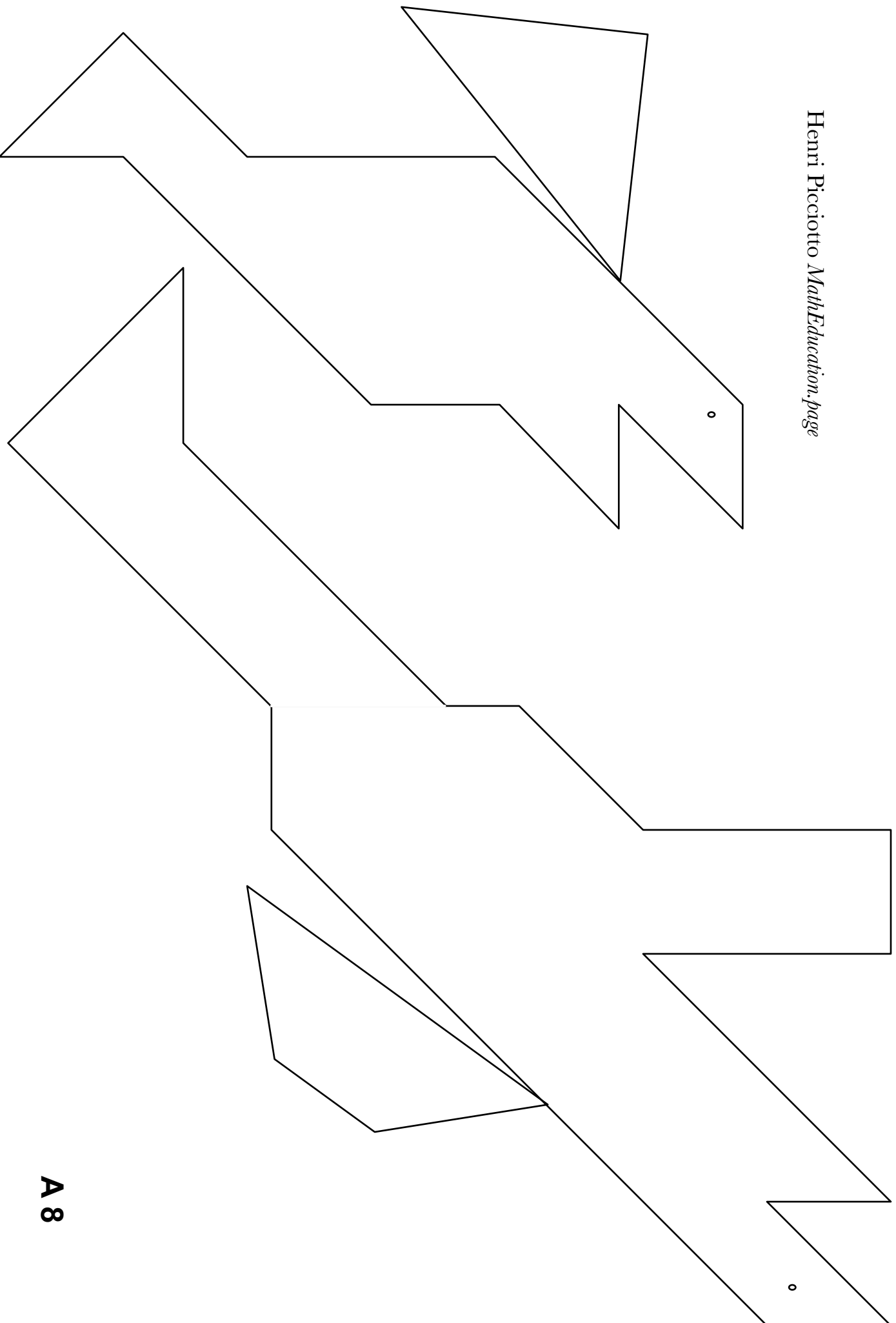


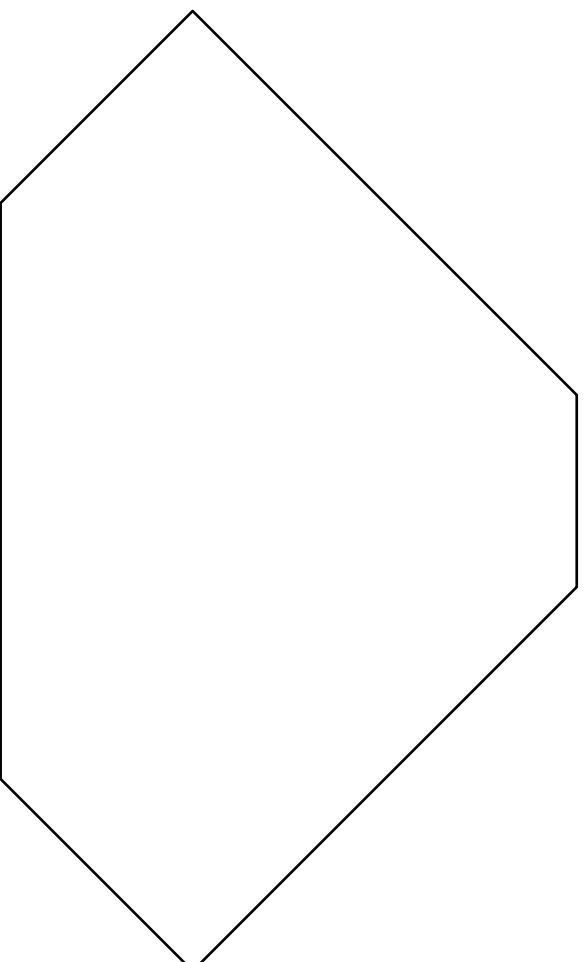


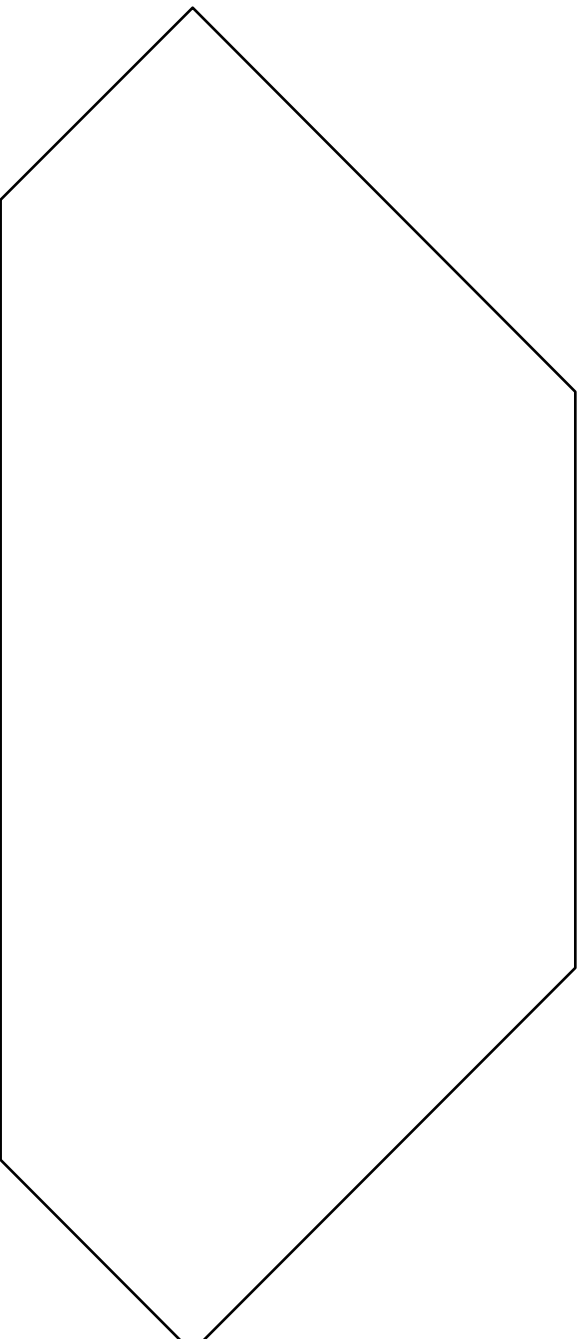


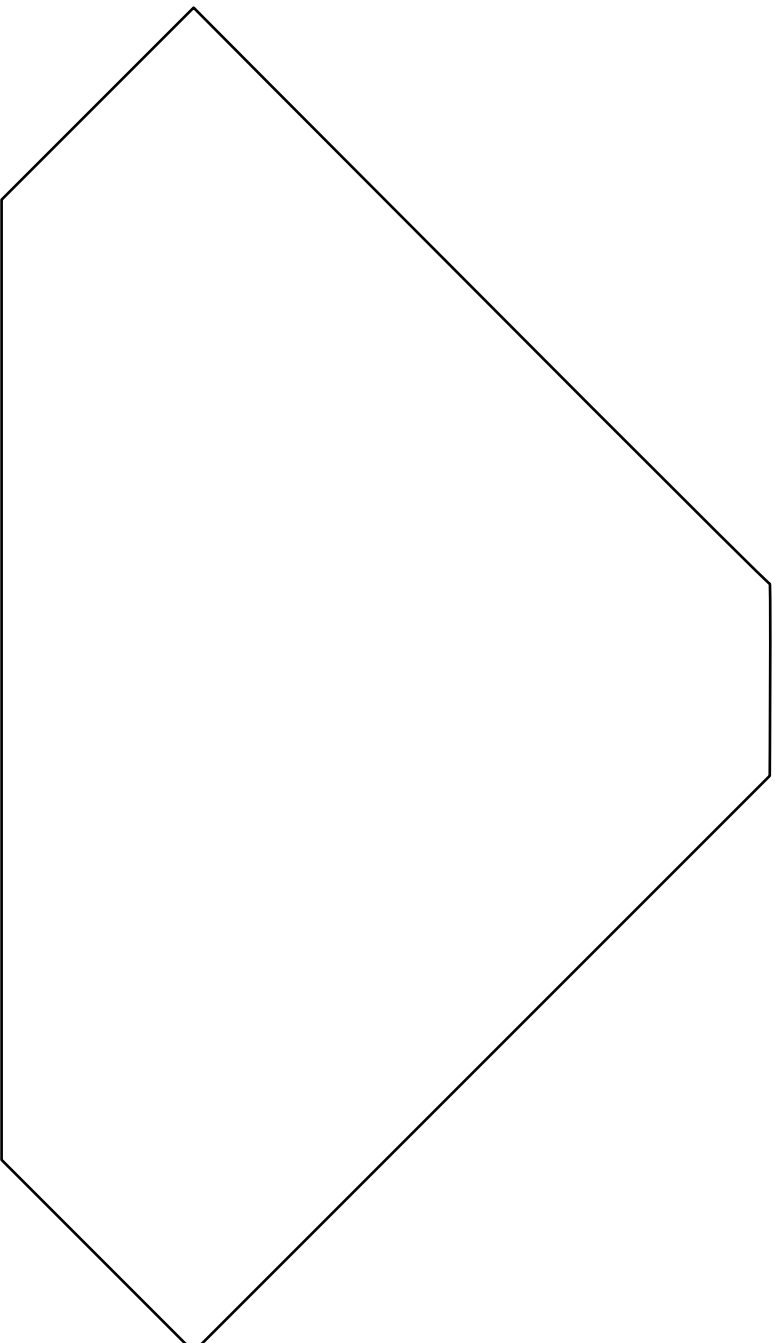
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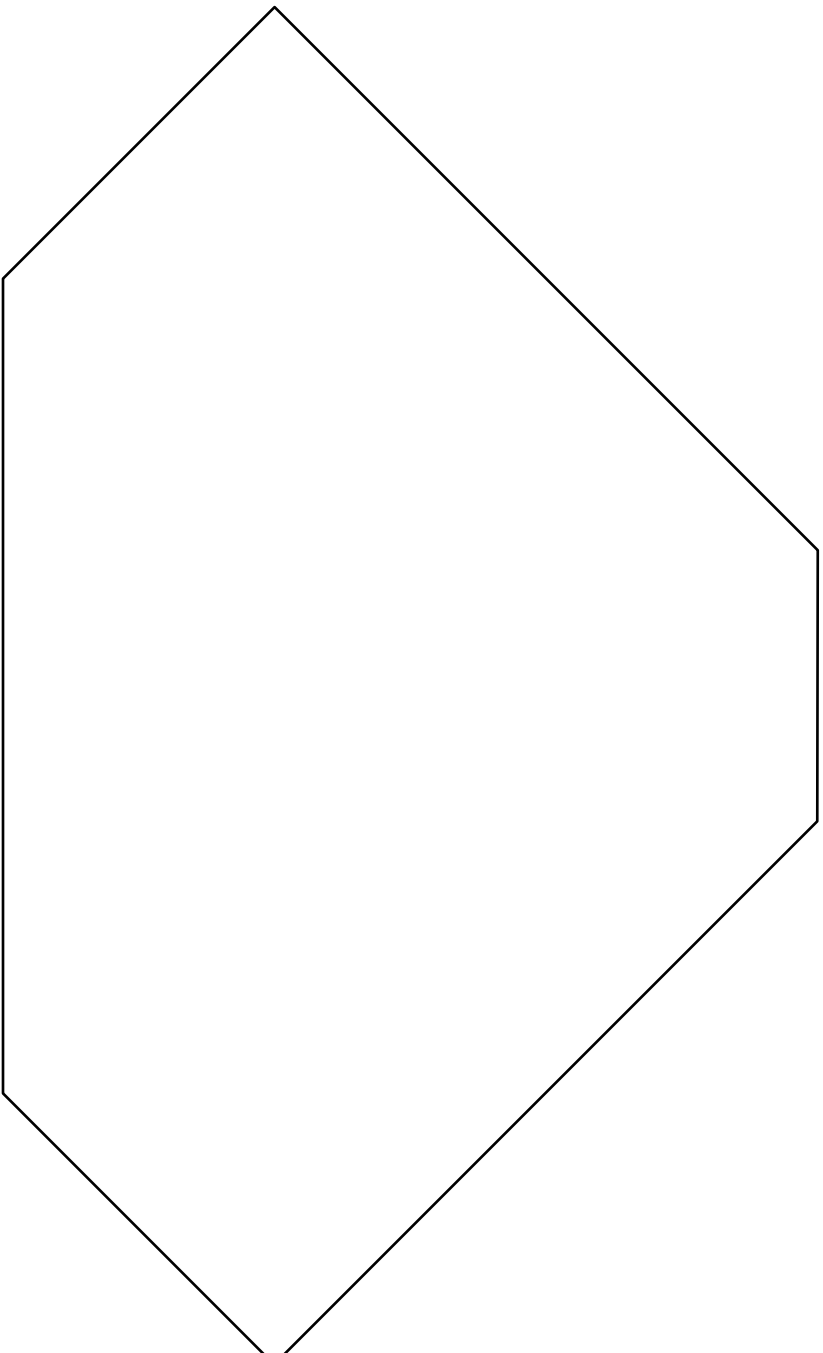
Henri Picciotto *MathEducation.page*

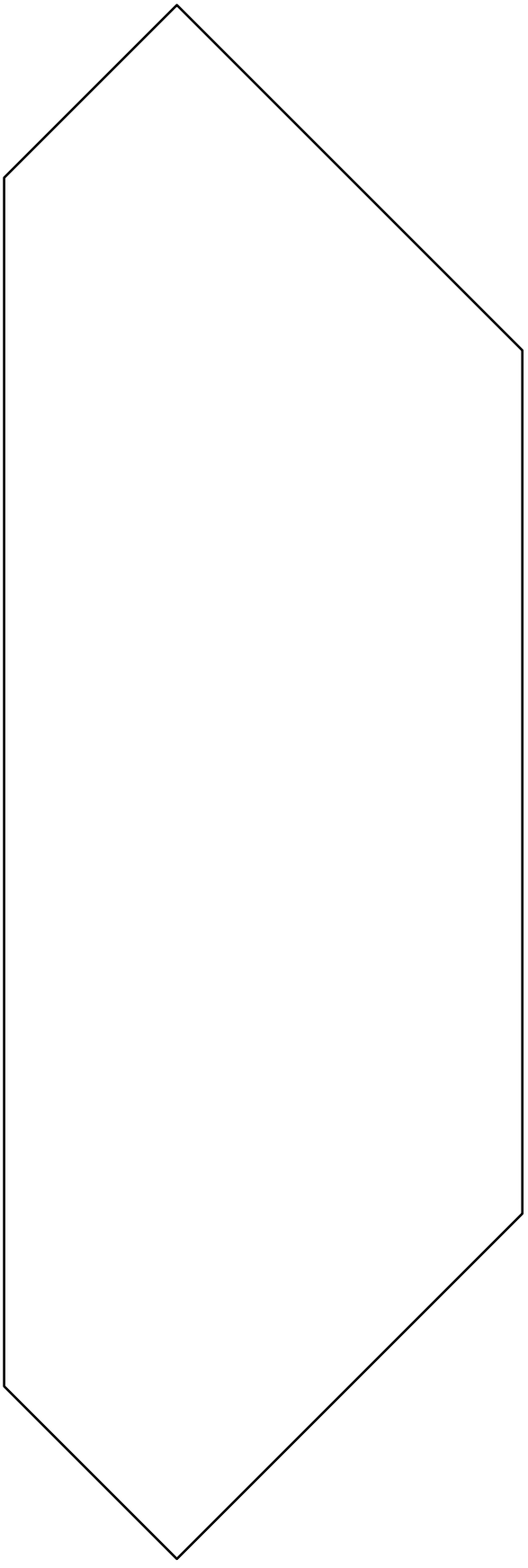


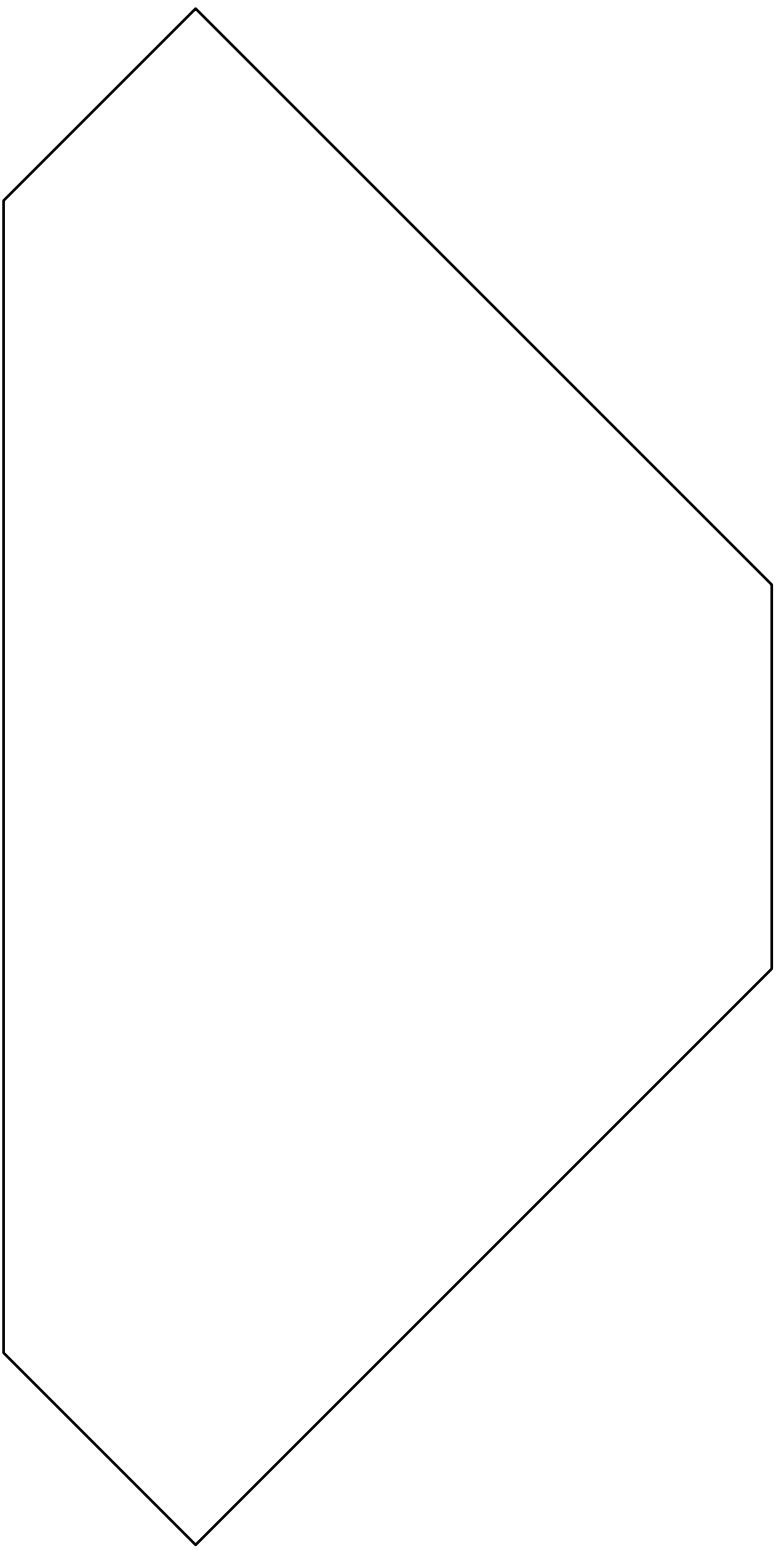


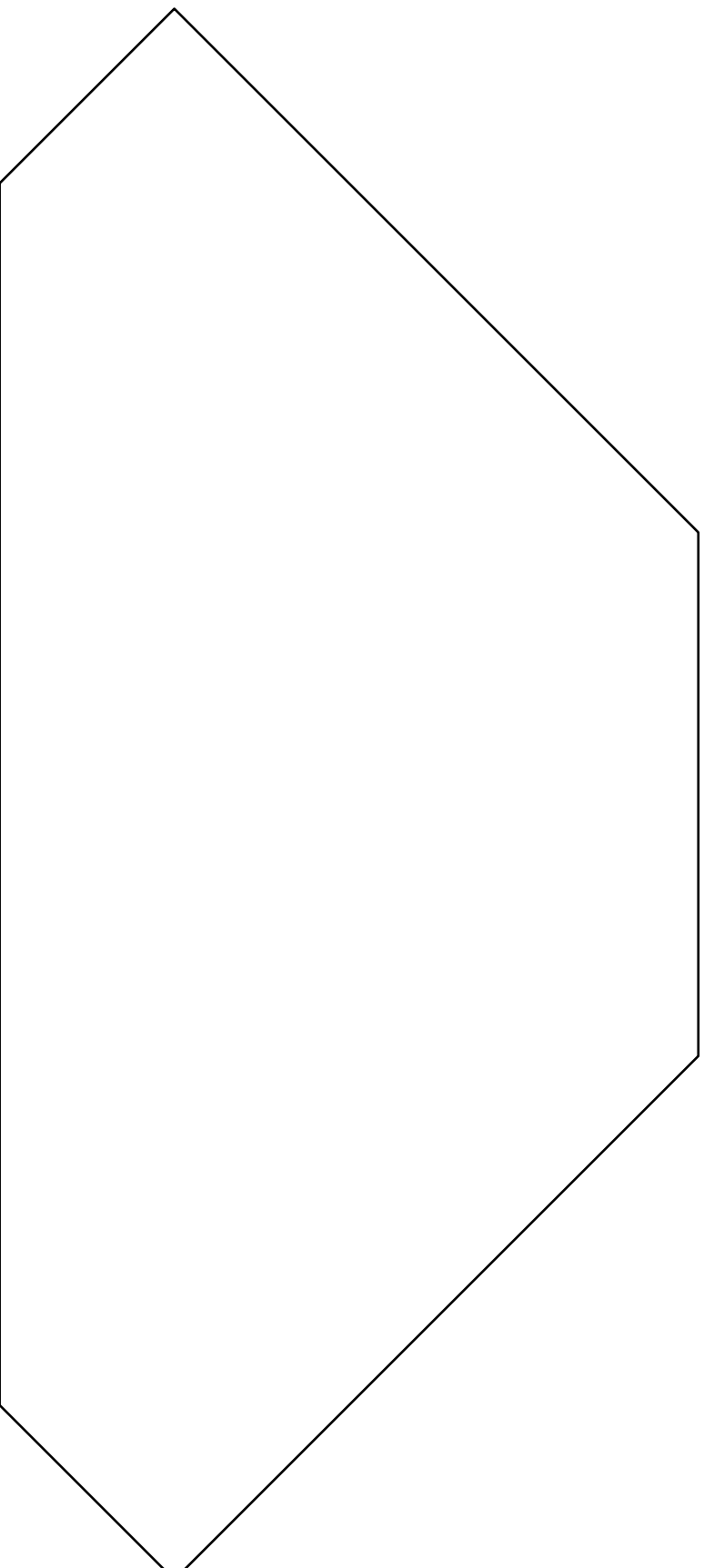


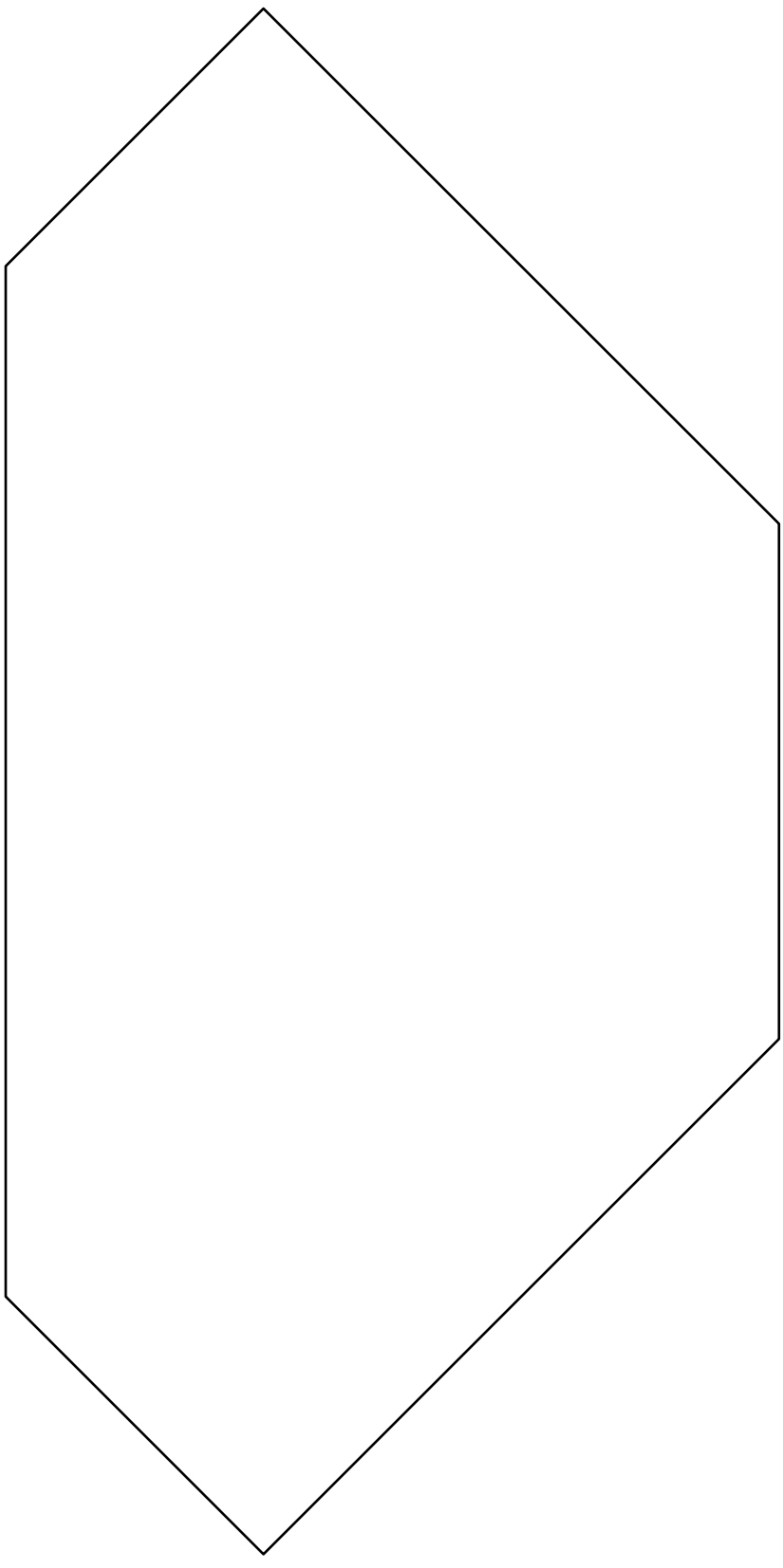


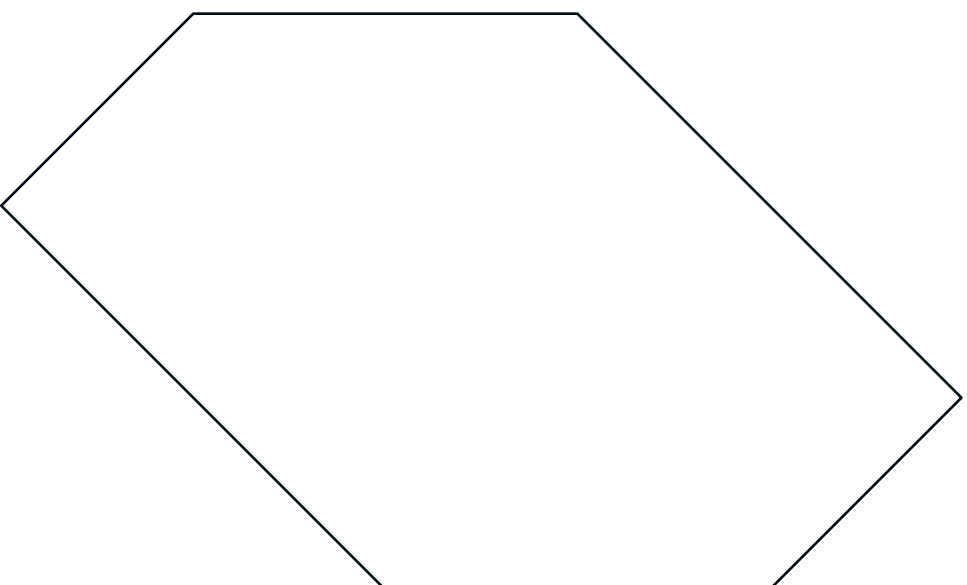


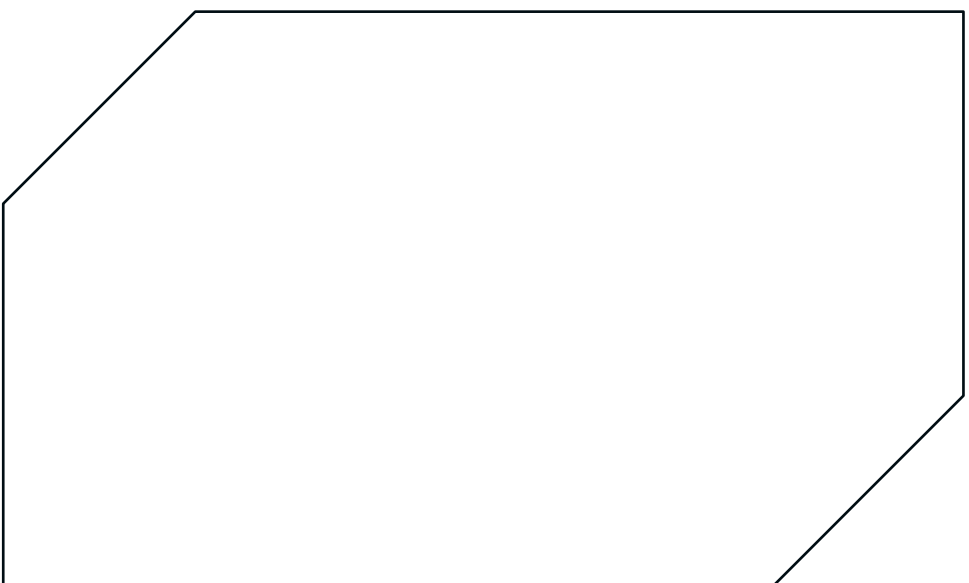


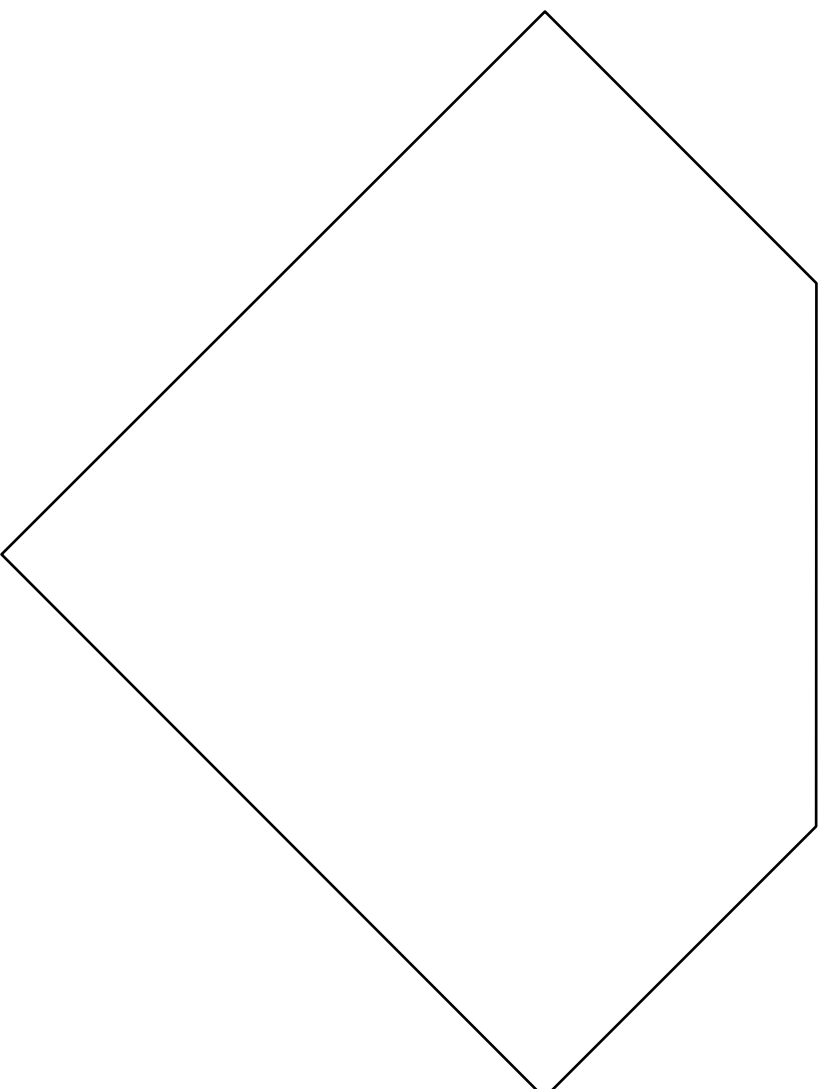


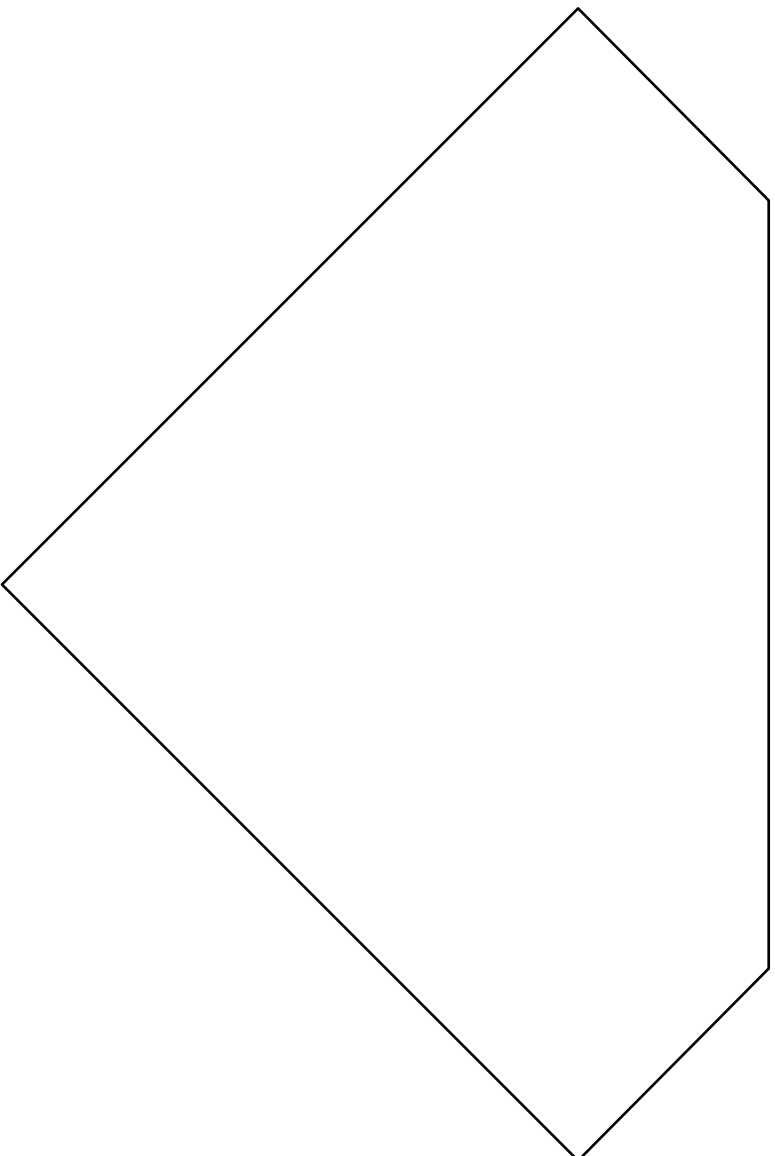


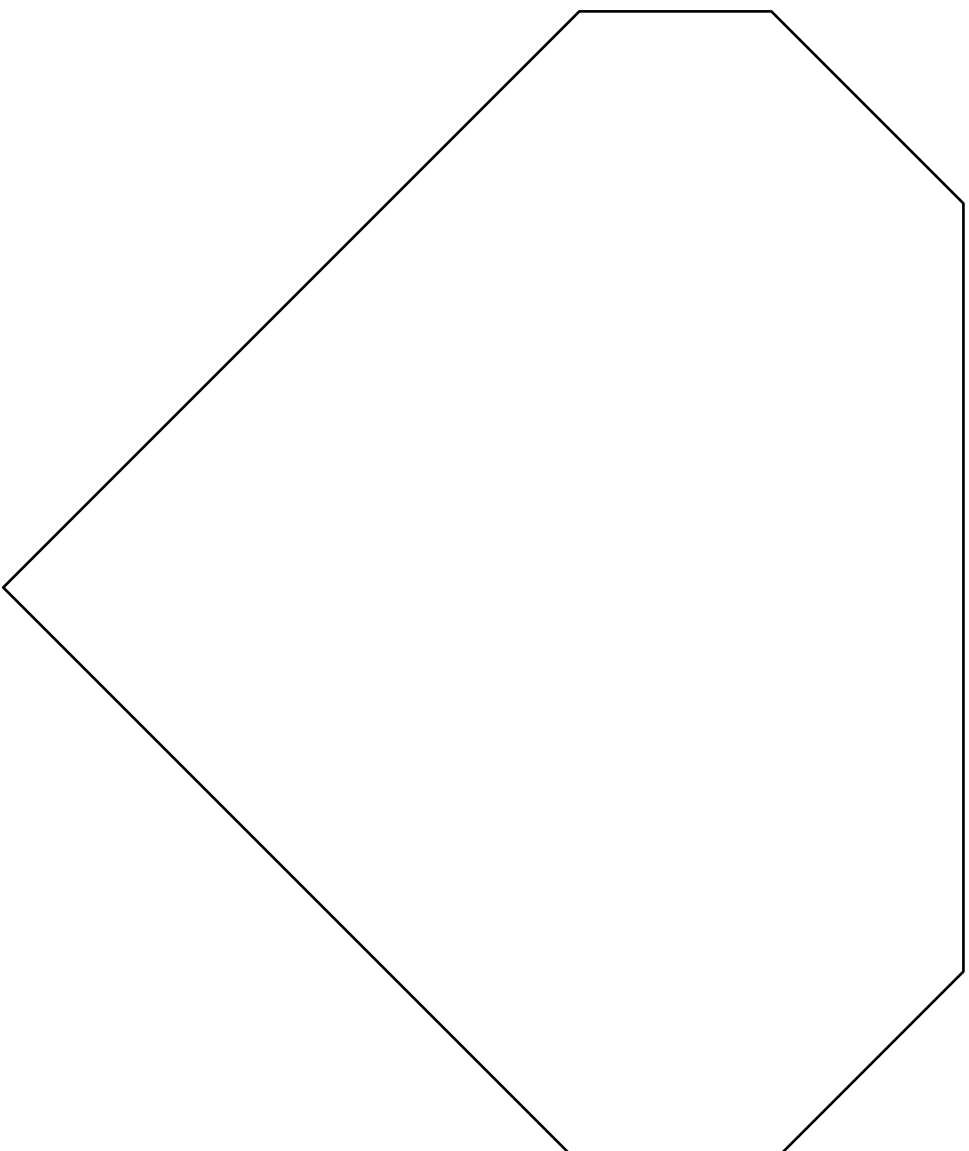


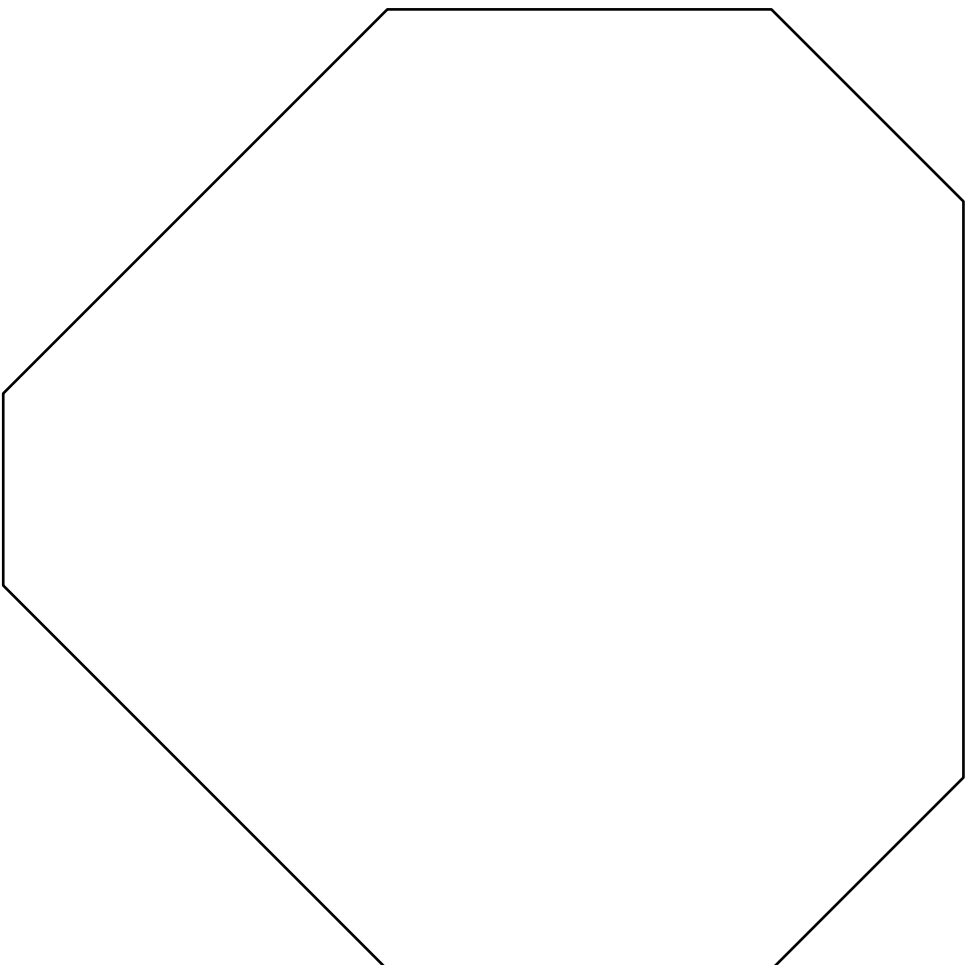


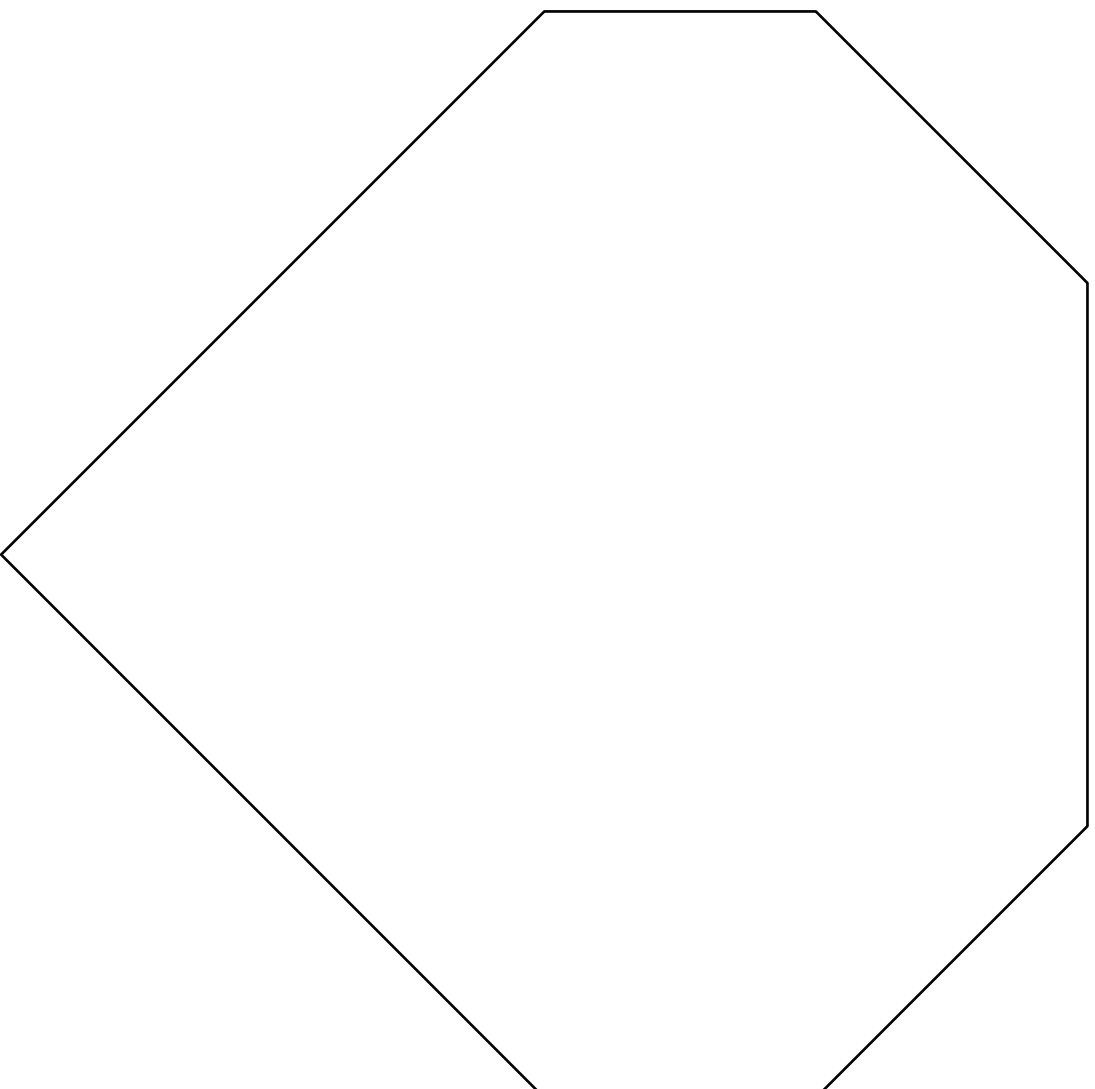


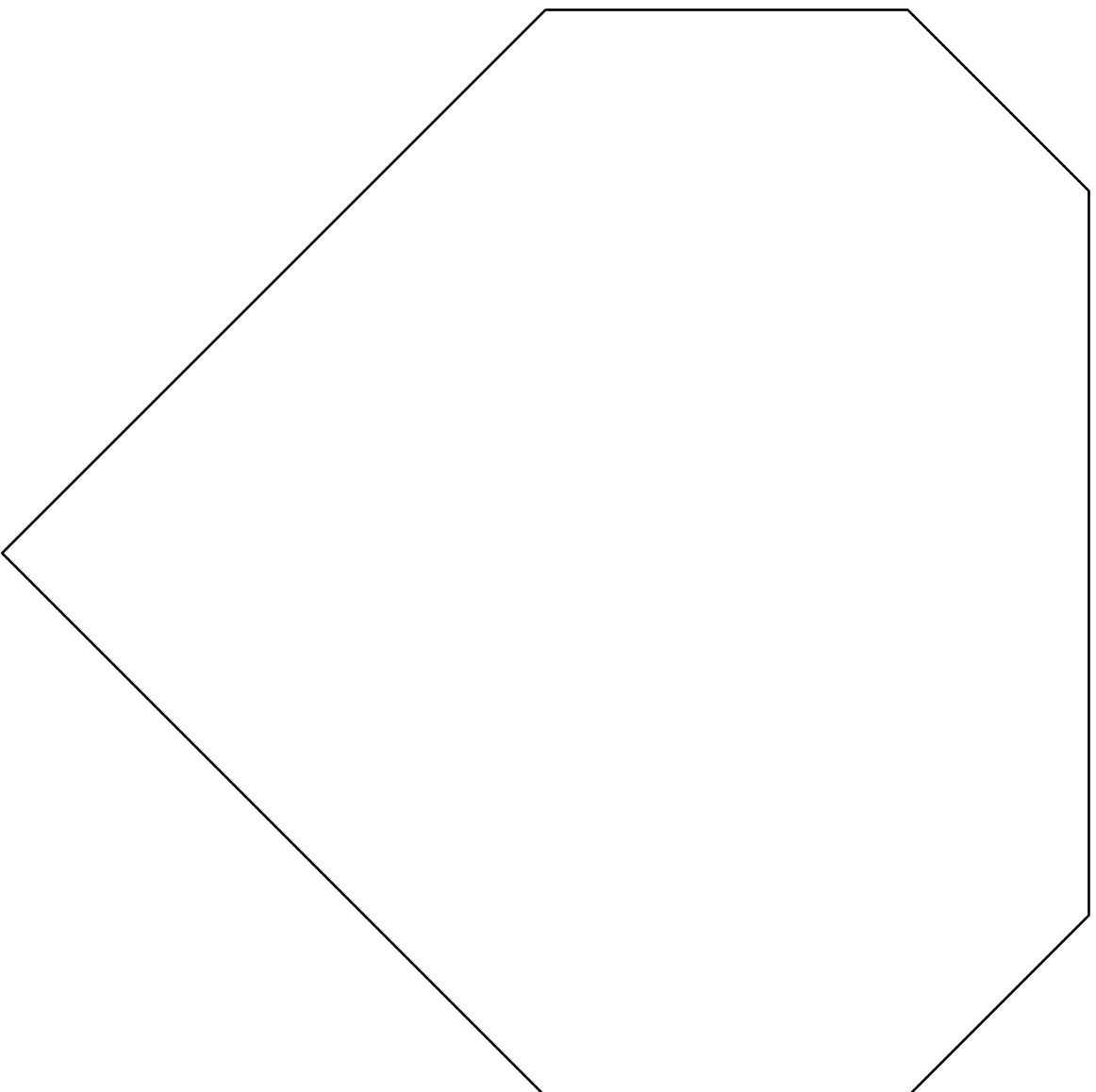


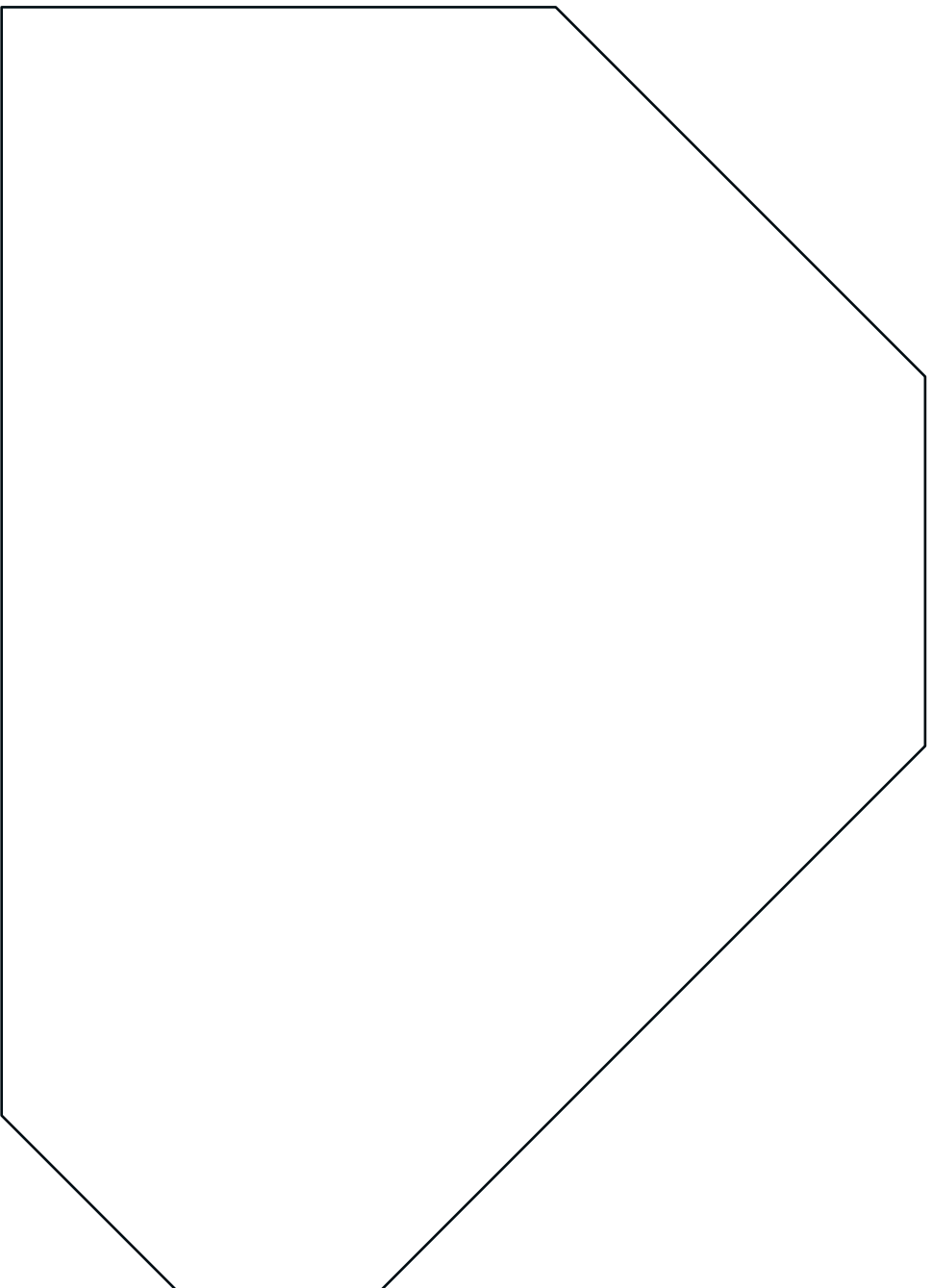


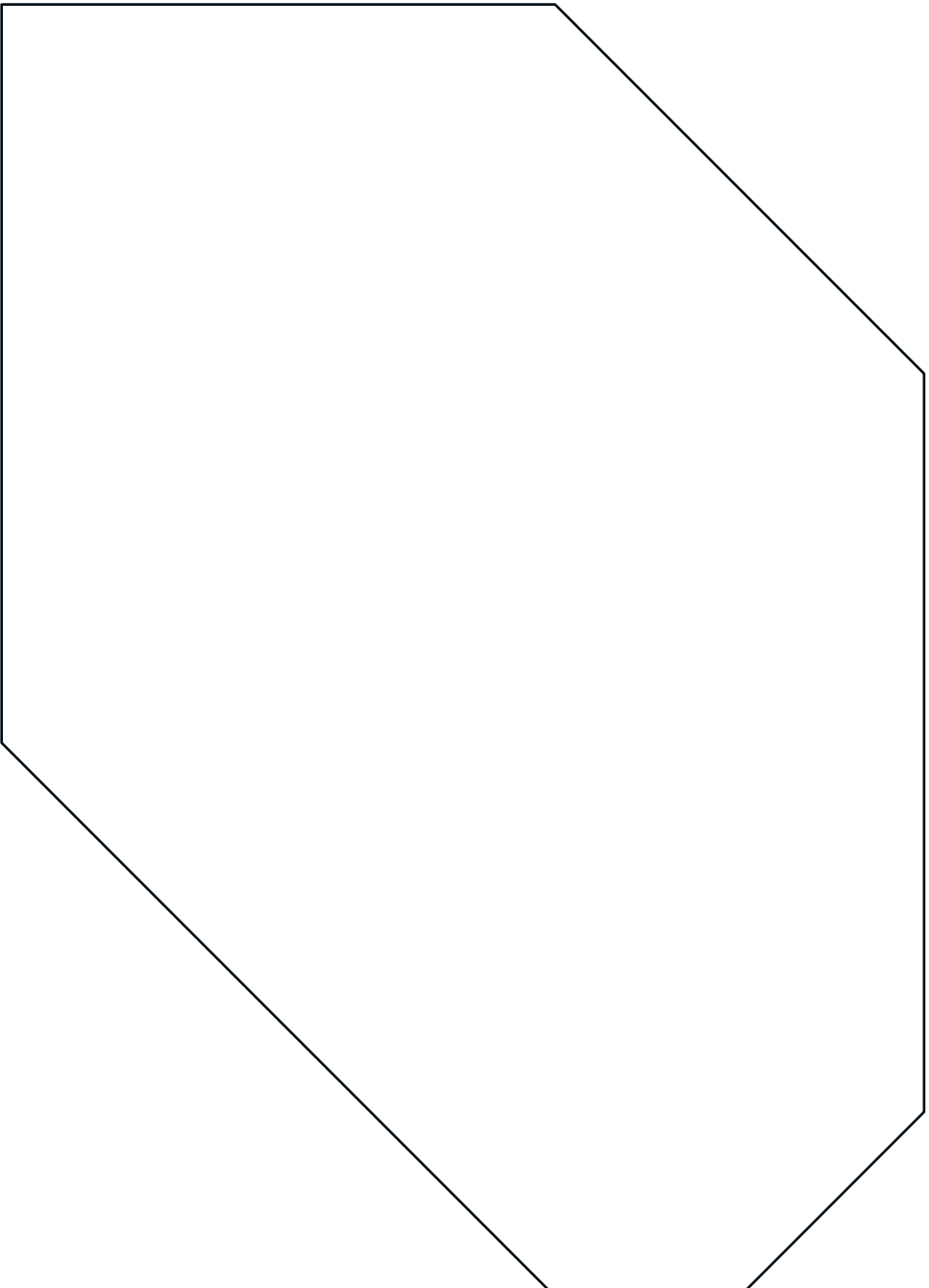


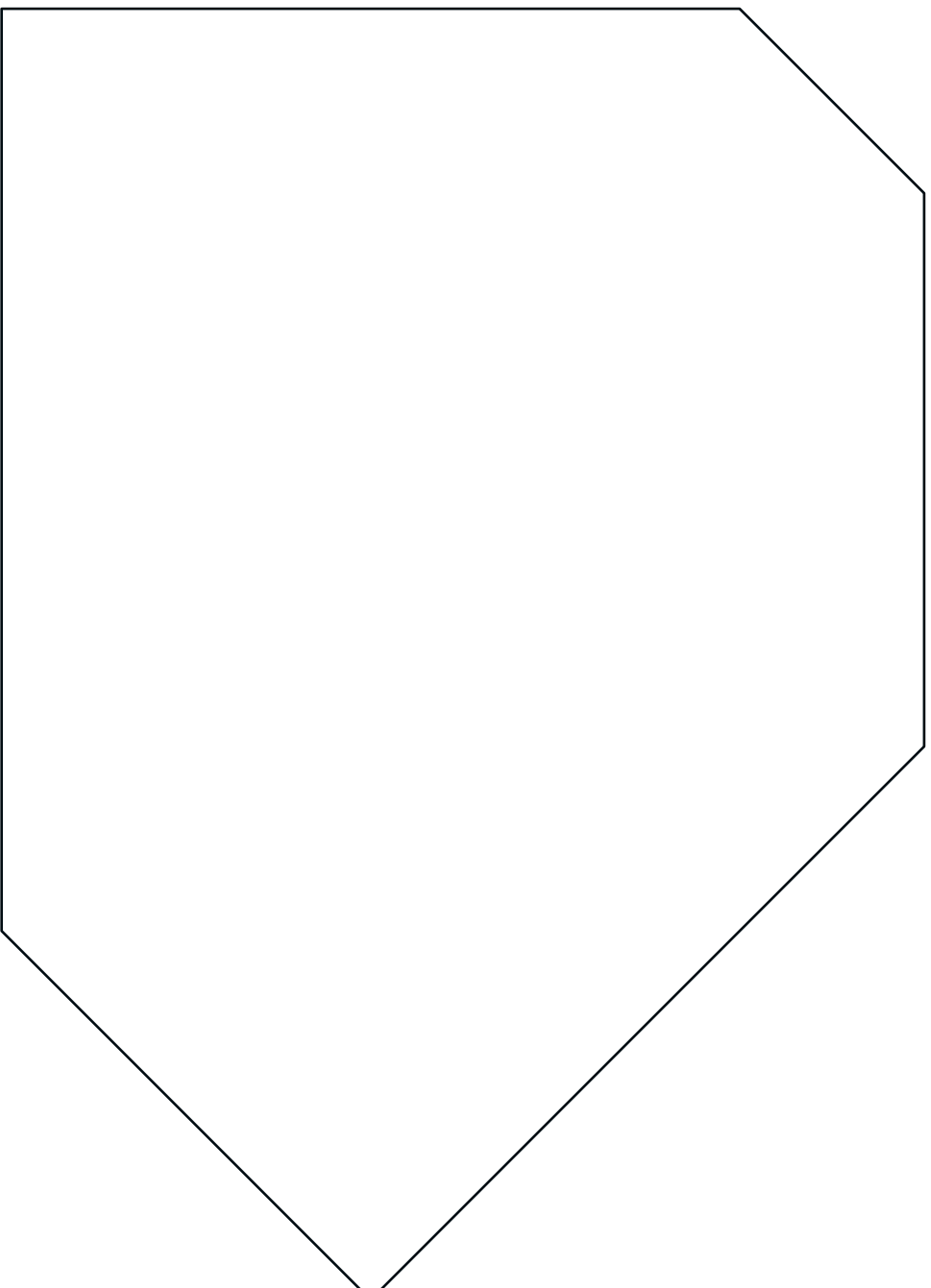


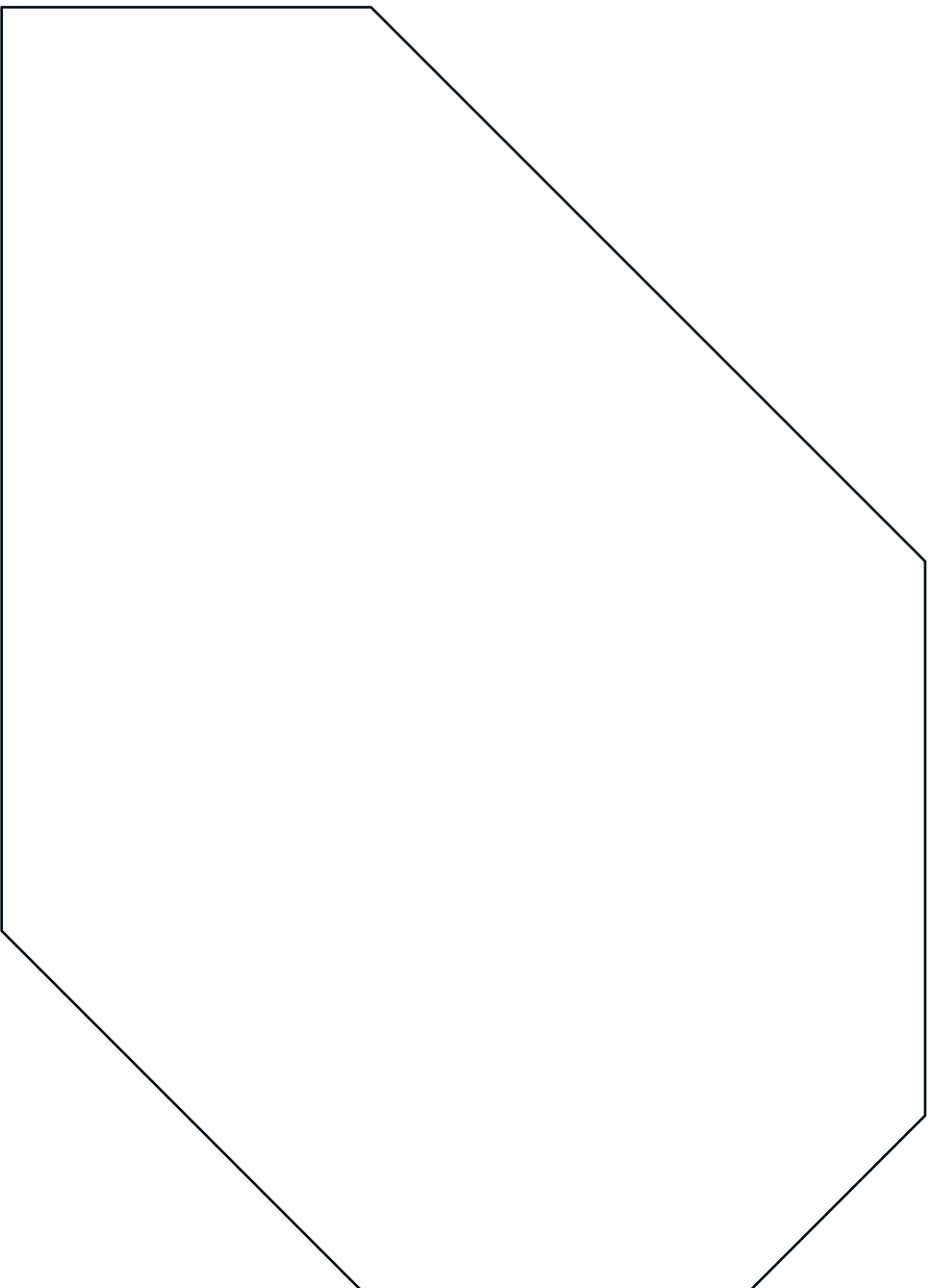


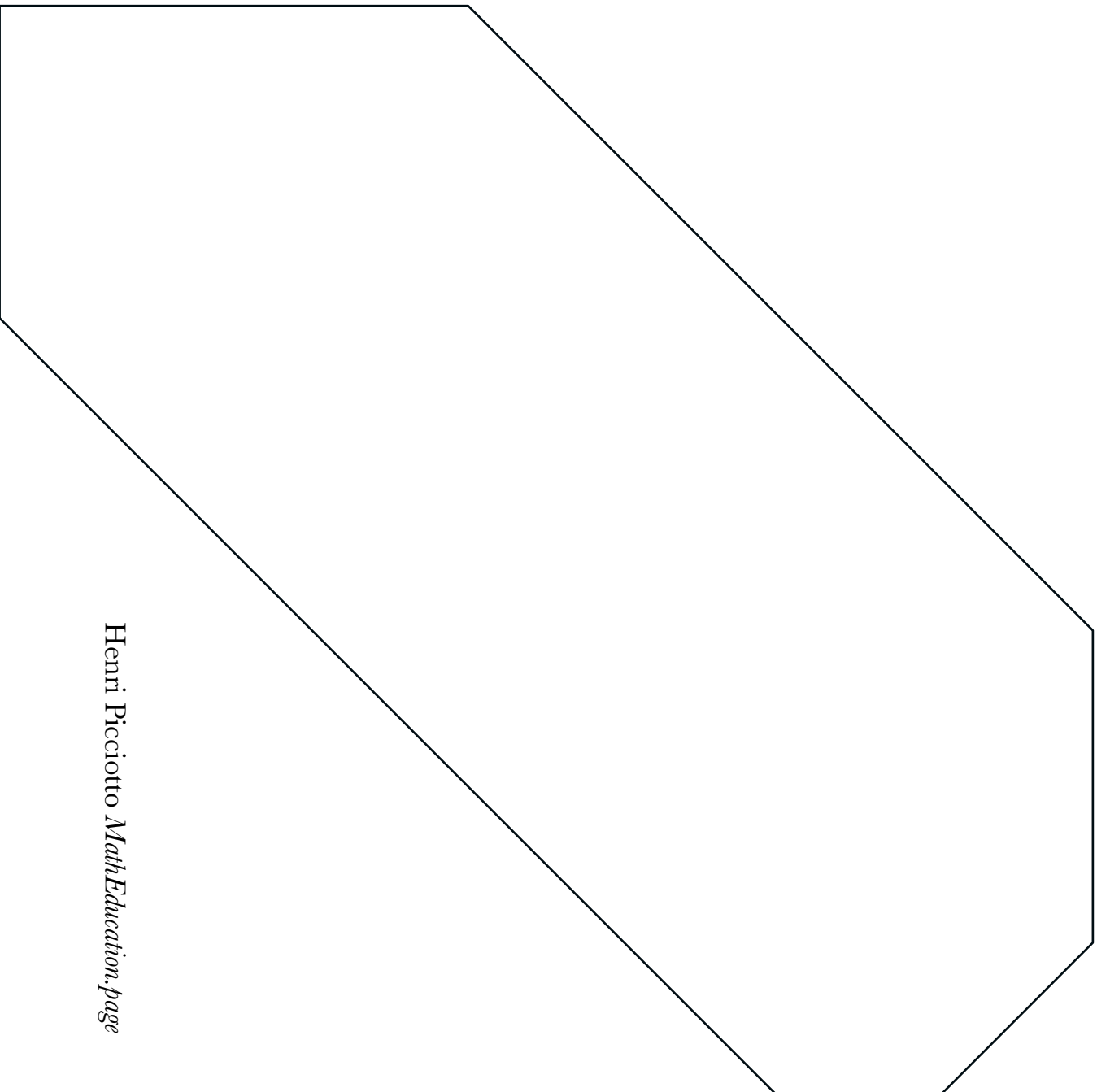


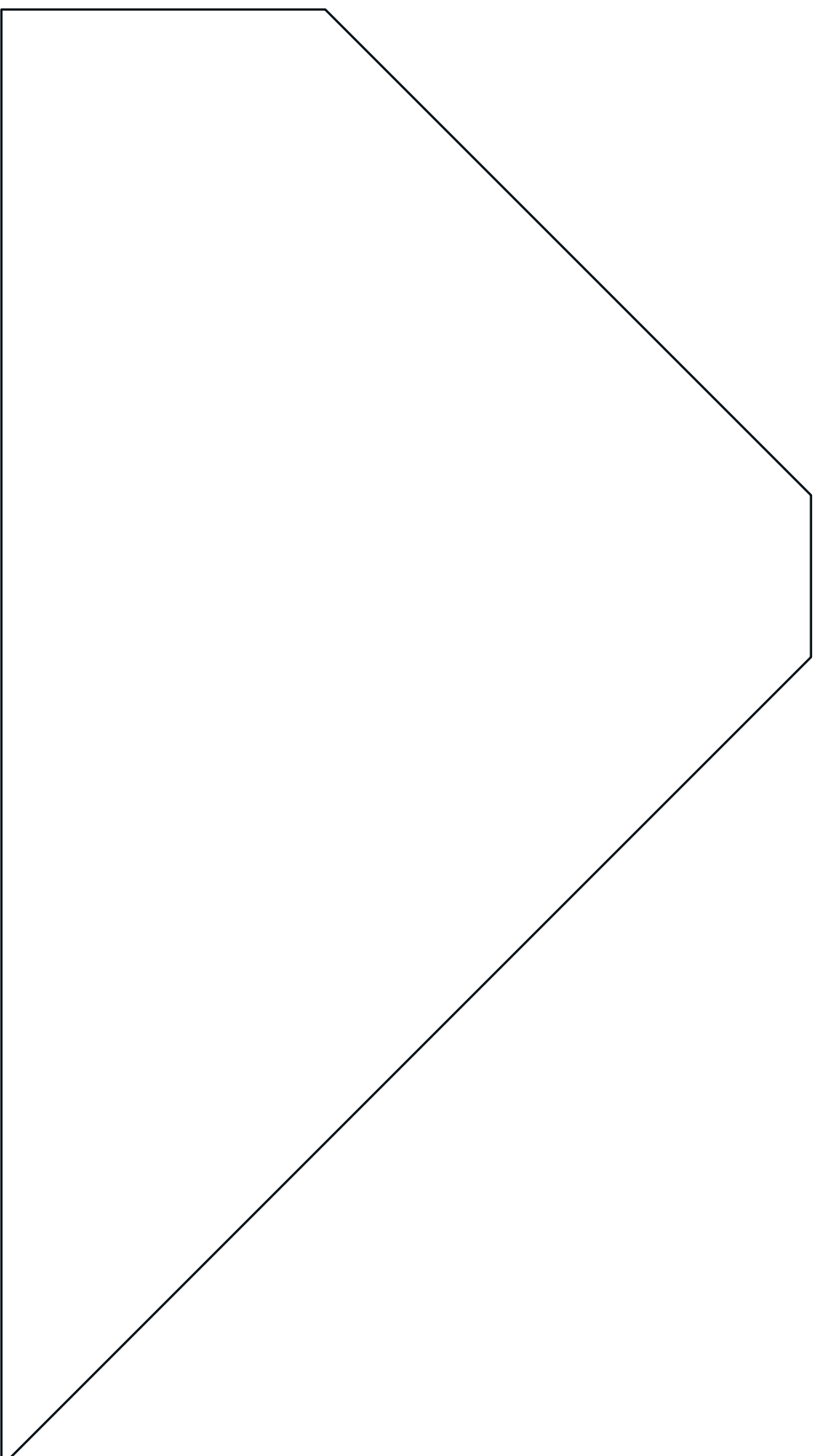


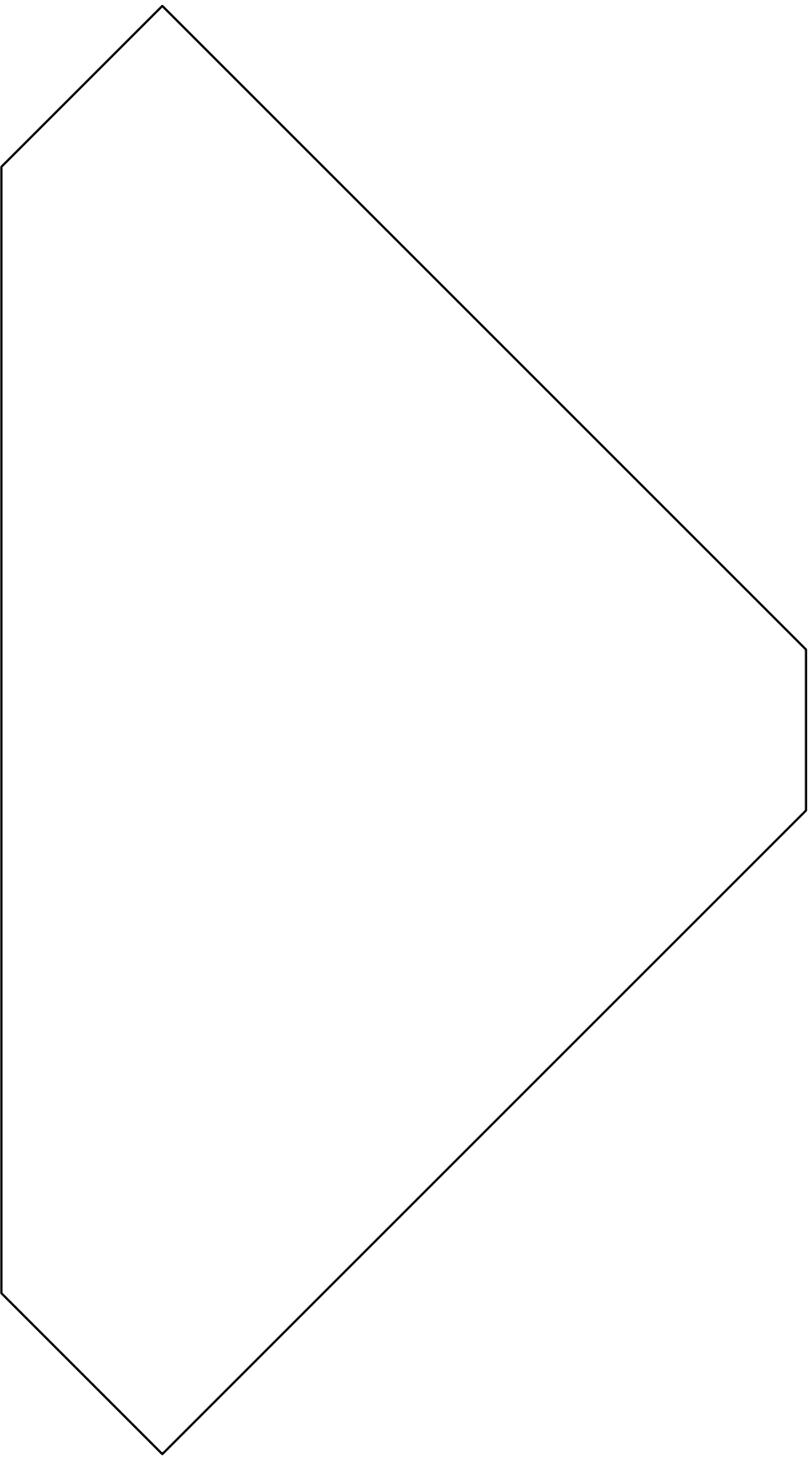


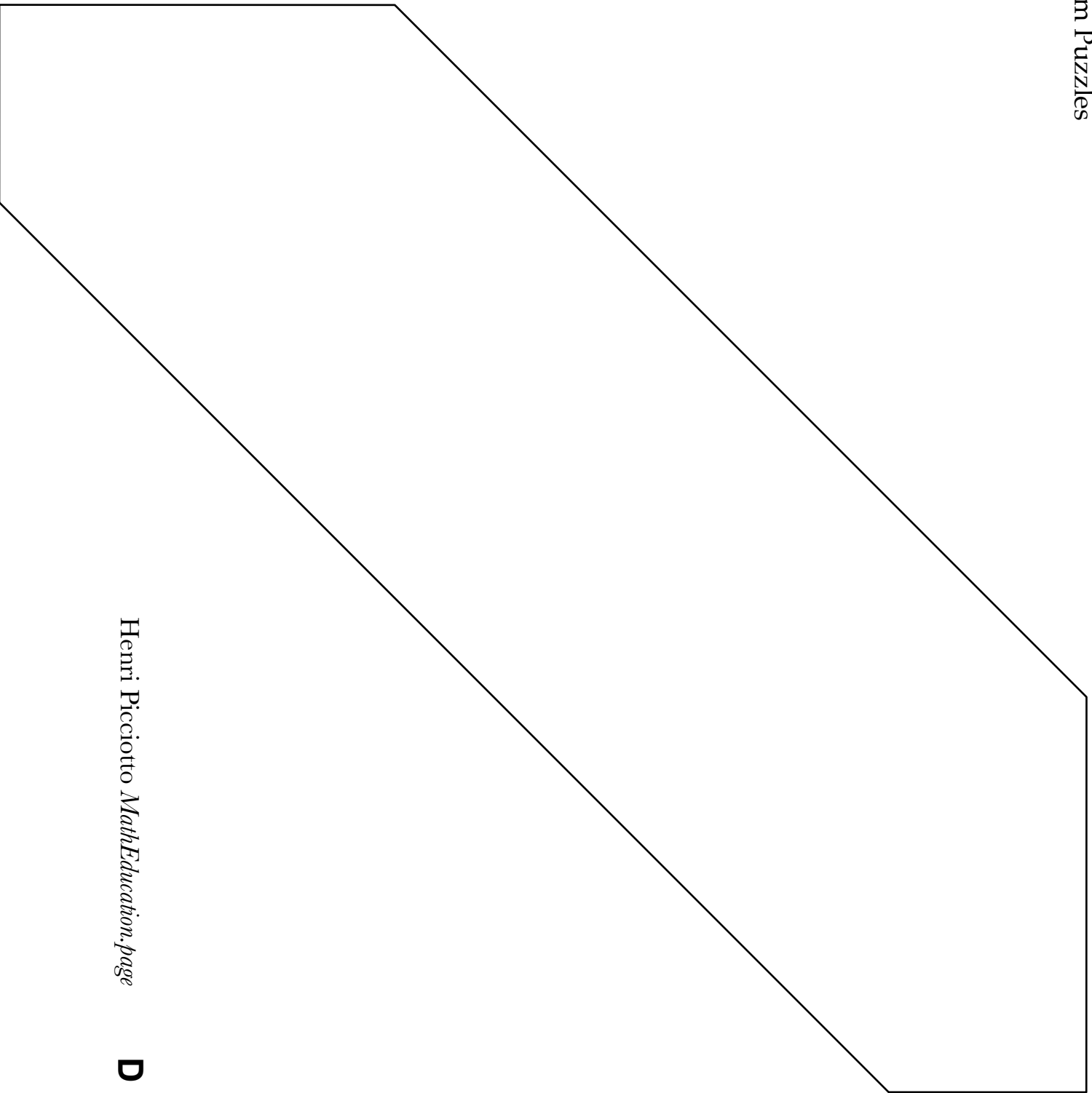












Solutions

Set A

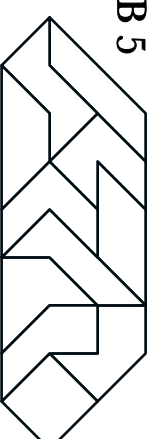
The solutions to Set A puzzles are on pages 8-17 of *SuperTangrams for Beginners*, volume 1.

Set B

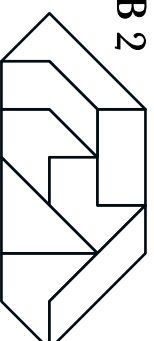
B1



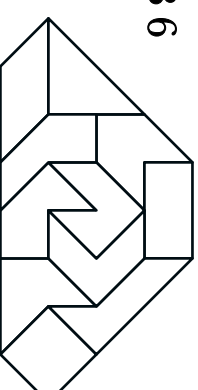
B5



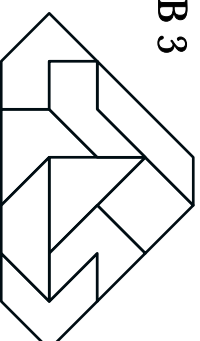
B2



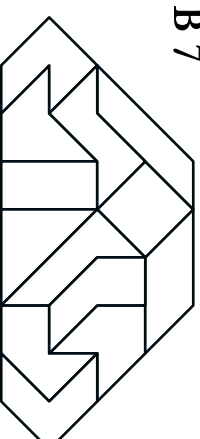
B6



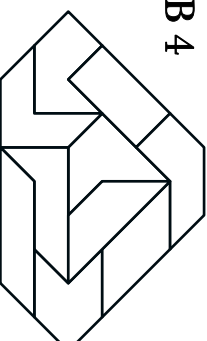
B3



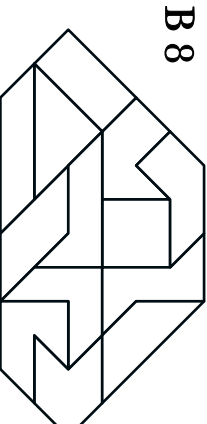
B7



B4



B8

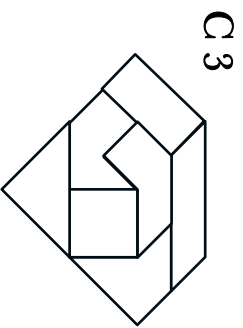


Set C

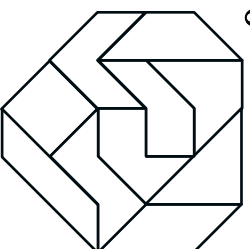
The solutions to C 1 and C 2 are on pages 9 and 11 of *SuperTangrams for Beginners*, volume 1.

Solutions

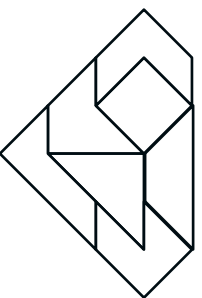
Set D



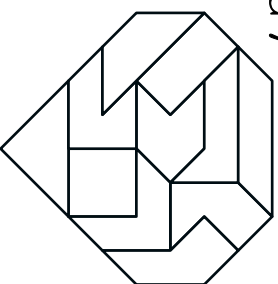
C 3



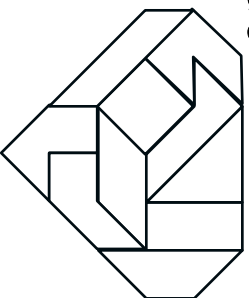
C 6



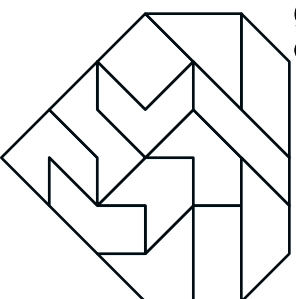
C 4



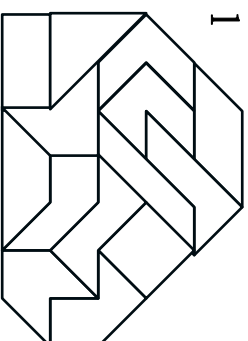
C 7



C 5



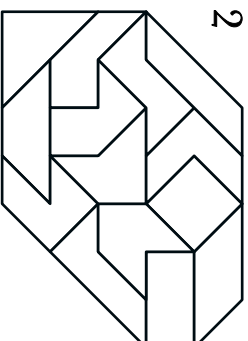
C 8



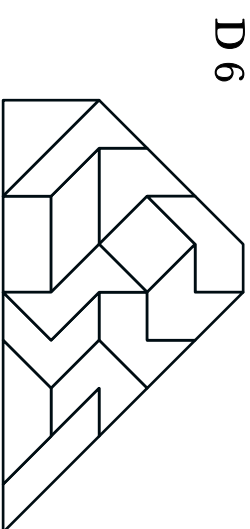
D 1



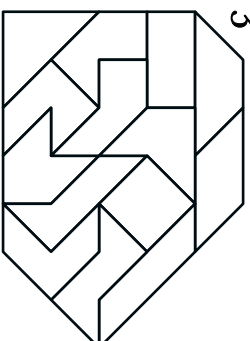
D 5



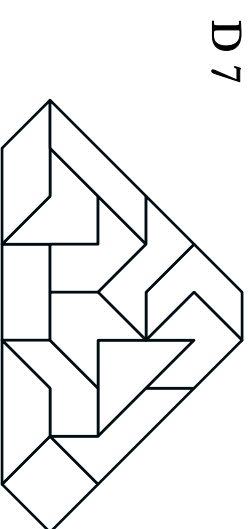
D 2



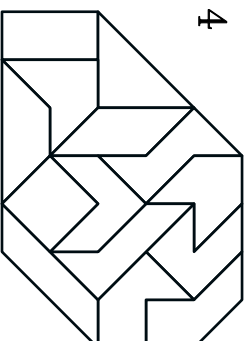
D 6



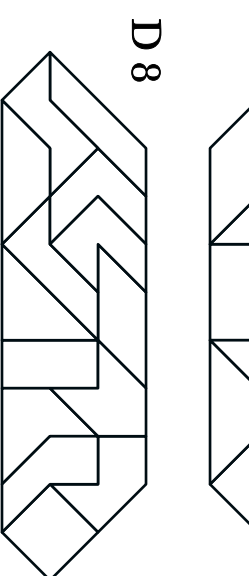
D 3



D 7



D 4



D 8