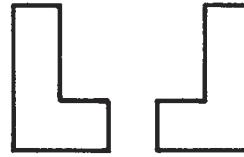
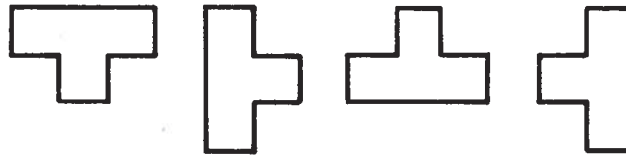


### One-Sided Polyominoes

If polyominoes were one-sided and could not be flipped over, there would have to be two l tetrominoes. You could call them the *right l* and the *left l*.

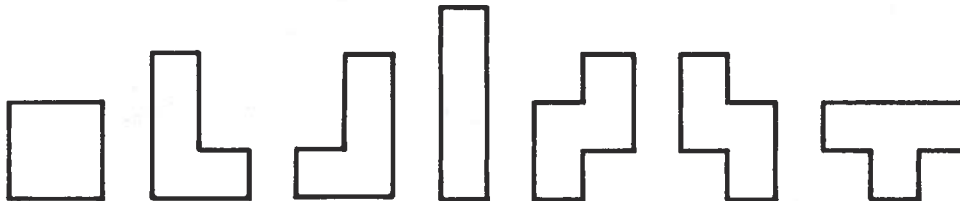


There would still be only one t tetromino. You can slide it into any position without flipping it over.

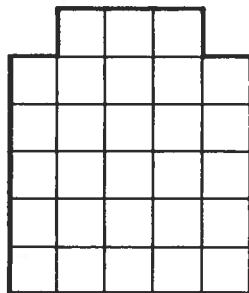


1. There would need to be two of one other tetromino. Which one is it? \_\_\_\_\_

Here are all seven *one-sided tetrominoes*.

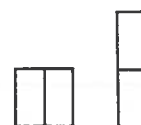


2. Use these seven shapes to cover the figure below. Do not use any shape more than once.



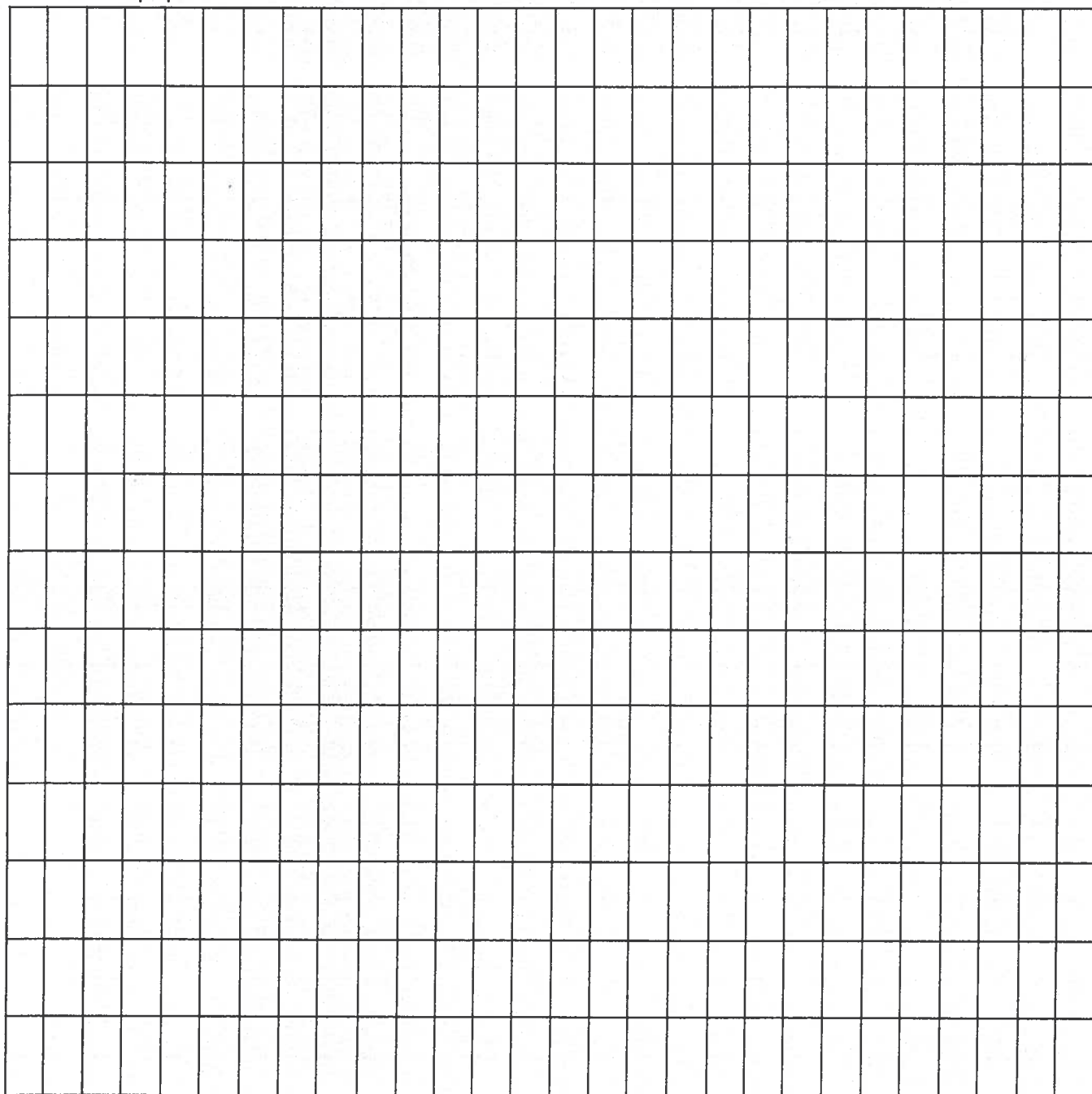
3. Find the one-sided pentominoes. Draw them on grid paper. ★

## Polyrectangles



You can make polyrectangles on rectangle paper. There are 2 directangles.

1. Find all the trirectangles. Show them below. ★
2. Find all the tetrairectangles. ★
3. Find all the pentarectangles. You may need to use some of the rectangular grid paper in the back of this book. ★



## Polytans

This is an isosceles right triangle. It is half of a square. Five of the seven pieces of the old Chinese *tangram* puzzle are triangles like this. Let's call the figures made by combining them *polytans*. Here are the ditans below.



1. Find all the tritans. Show them on the grid below. ★
2. Find all the tetratans. Draw them too. Sometimes they are called *supertangrams*. ★

