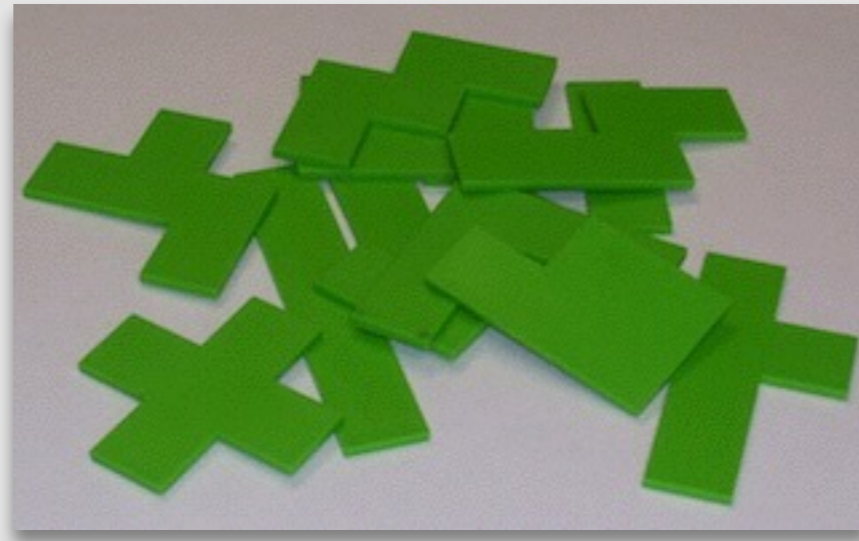


# Pentominoes



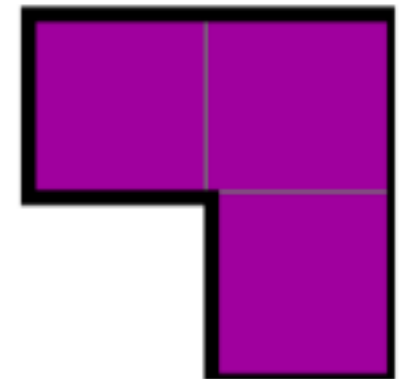
Henri Picciotto

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[henri@MathEducationPage.org](mailto:henri@MathEducationPage.org)  
[blog.MathEducationPage.org](http://blog.MathEducationPage.org)

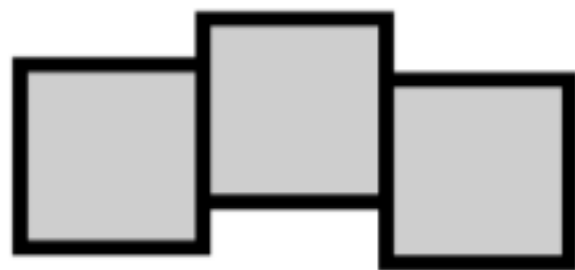
This is a domino



These are triominoes



These are *not* polyominoes

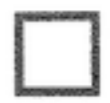


Polyominoes are shapes that are made by joining squares edge-to-edge.

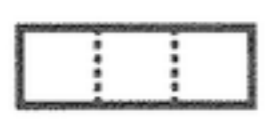
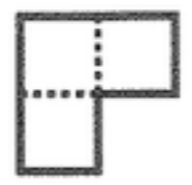
◇ Find all the tetrominoes

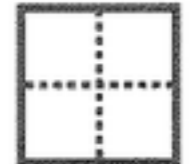
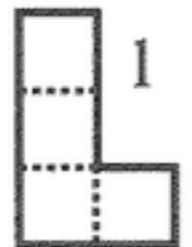
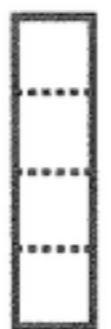
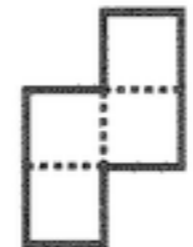
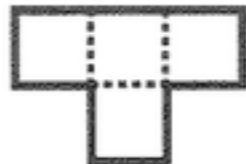
◇ Find all the pentominoes

Hexominoes

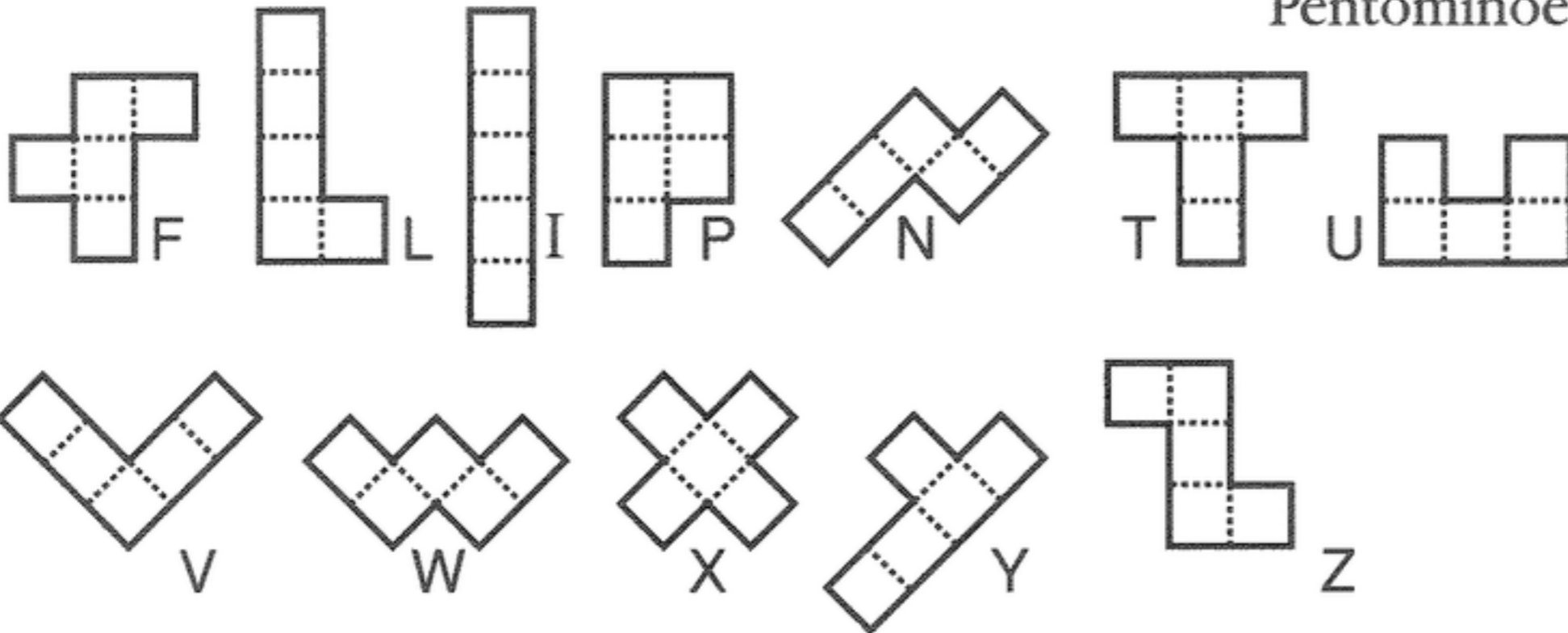
 Monomino

 Domino

 Straight }  
 Bent } Trominoes

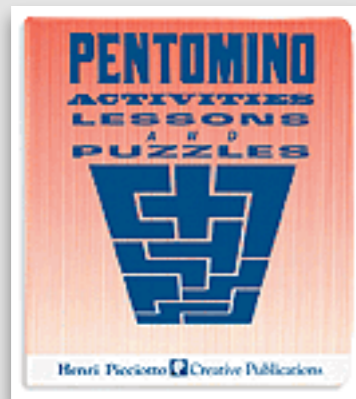
 Square  
 I  
 I  
 N  
 T  
Tetrominoes

# Pentominoes



# Working with Pentominoes

Available from Didax --  
with an interactive DVD of the whole book



## Pentomino Activities, Lessons, and Puzzles

The last few copies may be available  
from McGraw-Hill.



Trace and flip.  
Does it fit?  
Make two piles.

(flip symmetry,  
a.k.a. mirror symmetry,  
bilateral symmetry)



Trace and turn.

How soon does it fit?

Make three piles:

- ◇ quarter turn
- ◇ half turn
- ◇ full turn

(turn or rotational symmetry)

A blue grid of squares is shown on a light blue background. The grid is composed of blue squares, some of which are missing, creating a pattern of holes. The word "Holes" is written in black serif font in the center of the grid. The grid is roughly 10 squares wide and 8 squares high. The holes are located at the following positions (row, column): (1, 2), (1, 3), (1, 4), (1, 5), (1, 6), (1, 7), (1, 8), (1, 9), (1, 10), (2, 1), (2, 2), (2, 3), (2, 4), (2, 5), (2, 6), (2, 7), (2, 8), (2, 9), (2, 10), (3, 1), (3, 2), (3, 3), (3, 4), (3, 5), (3, 6), (3, 7), (3, 8), (3, 9), (3, 10), (4, 1), (4, 2), (4, 3), (4, 4), (4, 5), (4, 6), (4, 7), (4, 8), (4, 9), (4, 10), (5, 1), (5, 2), (5, 3), (5, 4), (5, 5), (5, 6), (5, 7), (5, 8), (5, 9), (5, 10), (6, 1), (6, 2), (6, 3), (6, 4), (6, 5), (6, 6), (6, 7), (6, 8), (6, 9), (6, 10), (7, 1), (7, 2), (7, 3), (7, 4), (7, 5), (7, 6), (7, 7), (7, 8), (7, 9), (7, 10), (8, 1), (8, 2), (8, 3), (8, 4), (8, 5), (8, 6), (8, 7), (8, 8), (8, 9), (8, 10).

Holes



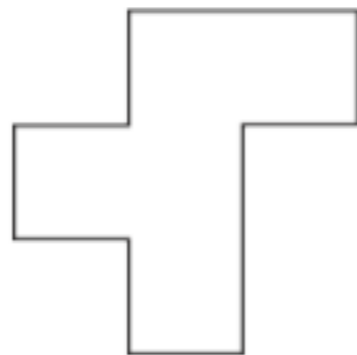
Layers  
(congruent figures)



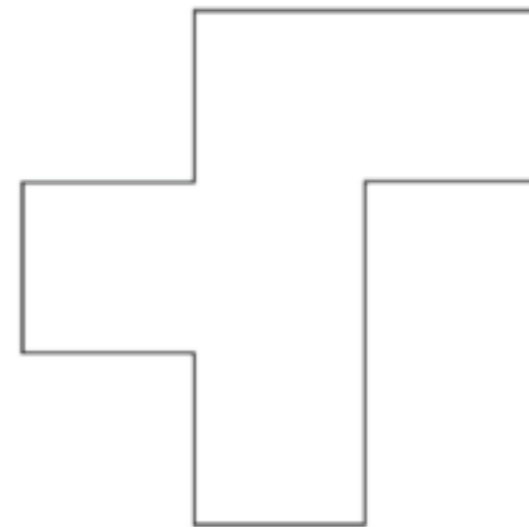
# Pentomino Rectangles: Puzzles

# Pentomino Rectangles: Discussion

# Pentomino Blowups



double the dimensions



triple the dimensions

# Pentomino Game