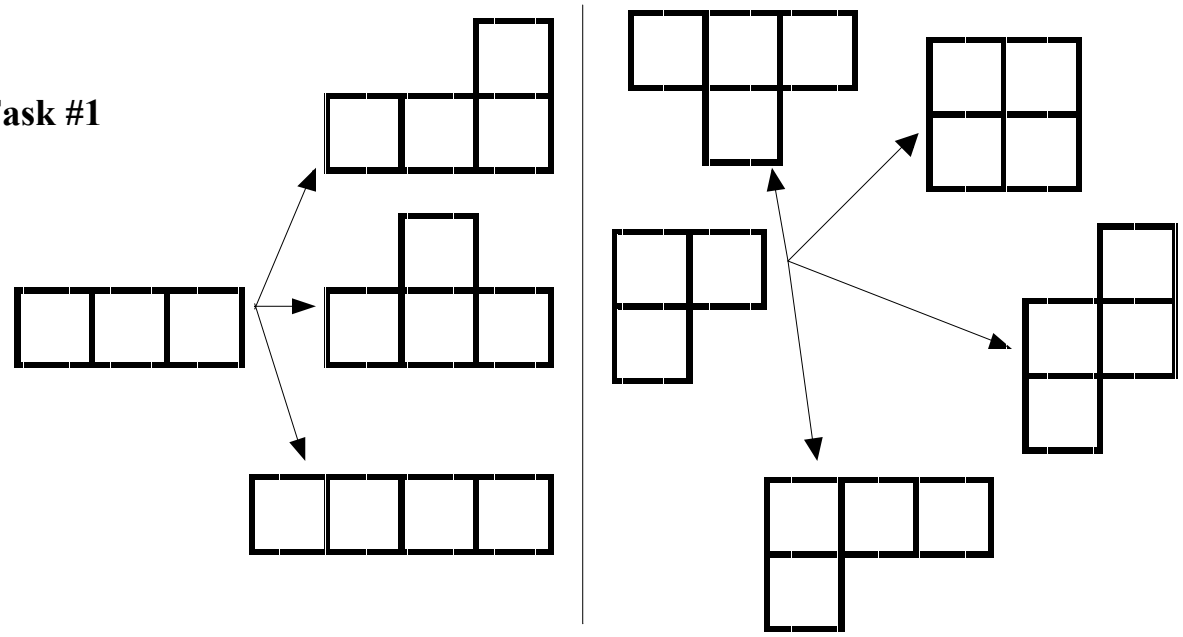
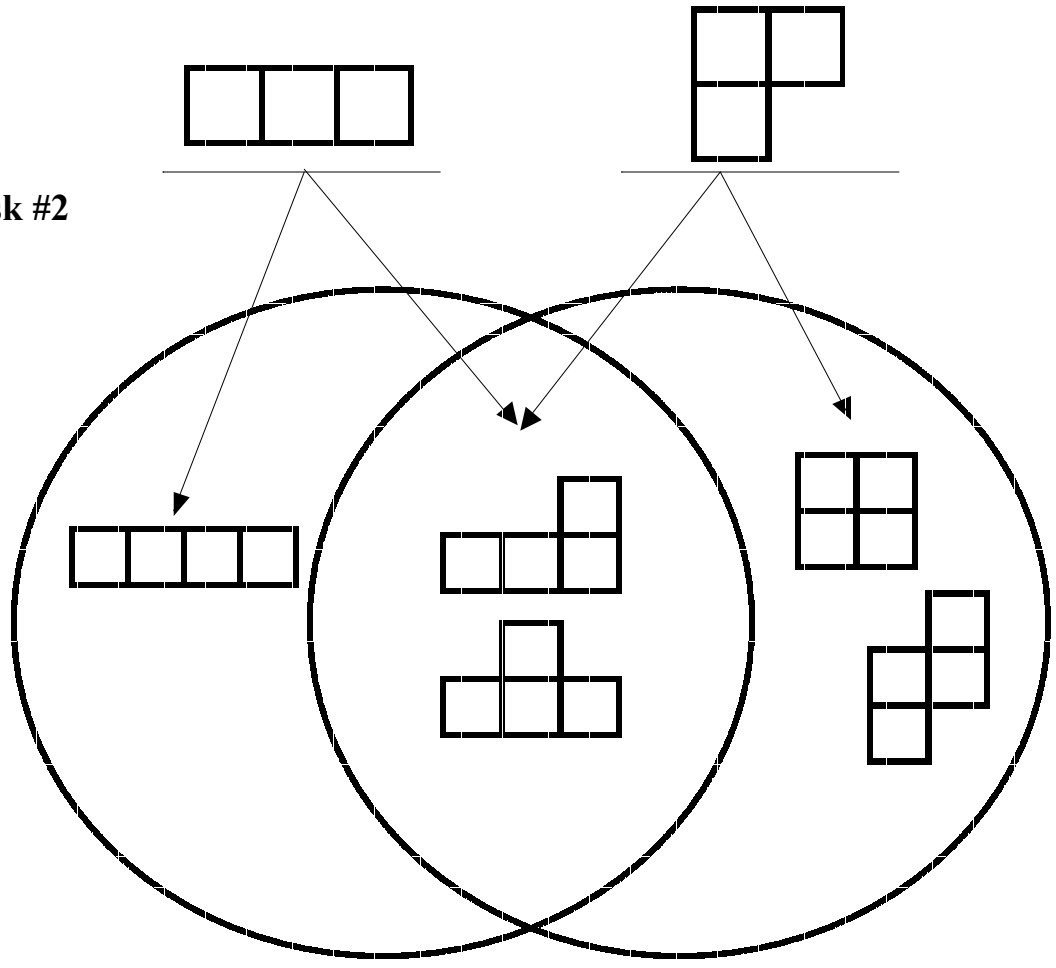
Sorting the "___ominoes" Answer Key

Task #1



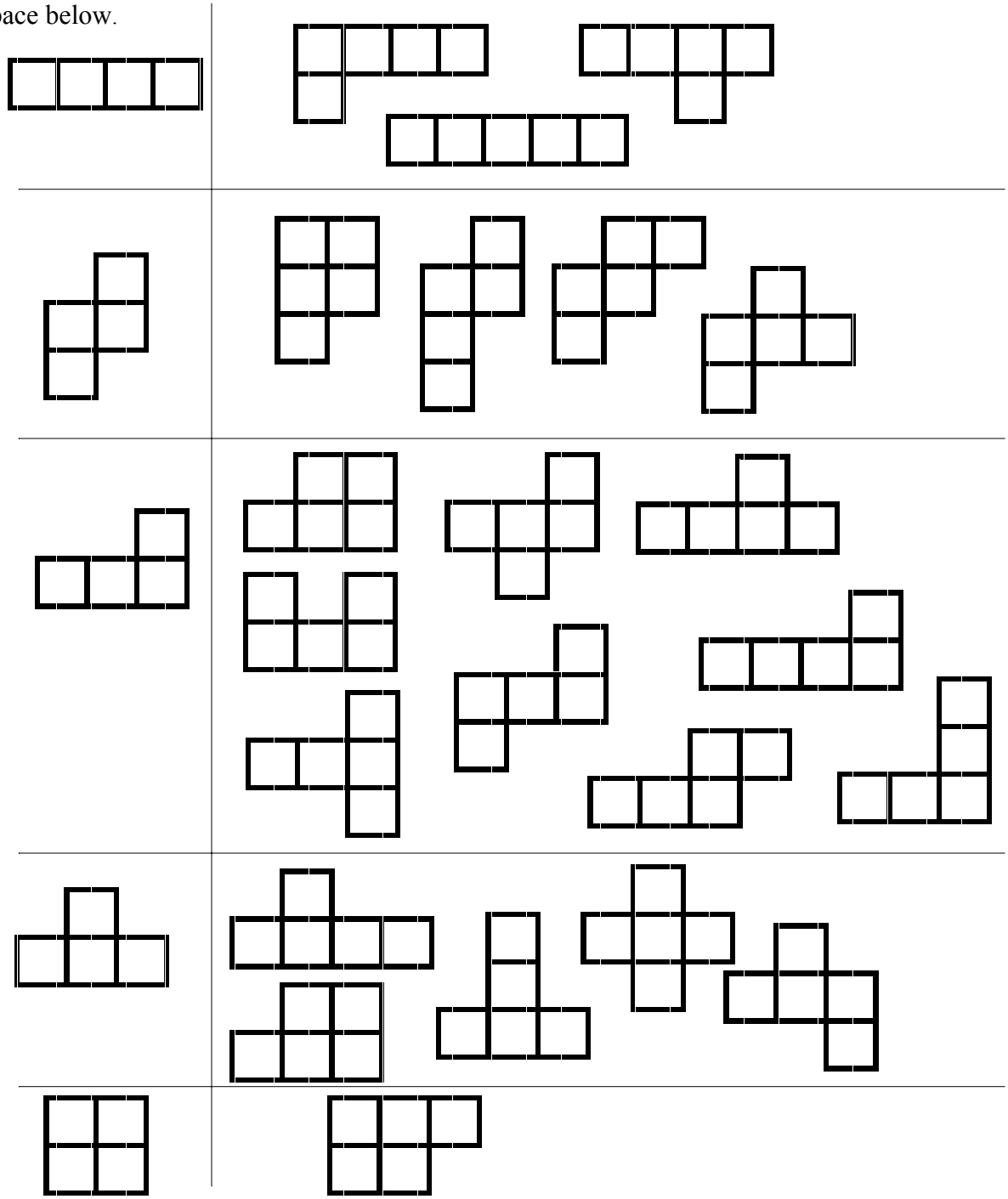
Task #2



Pentominoes Created from Tetrominoes

Task #3

Use each tetromino in turn to construct **as many different** "pentominoes" (a figure made up of five squares connected along complete edges) as possible by adding one square. Draw them in the space below.



Task #3 - Questions

a) What are your observations about the number of pentominoes created from each tetromino?

- different number each time
- least symmetrical tetromino generates the most pentominoes
- most symmetrical tetromino generates the least pentominoes
- any other reasonable observation

b) How can you use this information to predict which pentomino will generate the most “hexominoes” (figures made of six squares connect along complete edges)?

- least symmetrical pentomino generates the most hexominoes

c) How can you use this information to predict which pentomino will generate the least hexominoes?

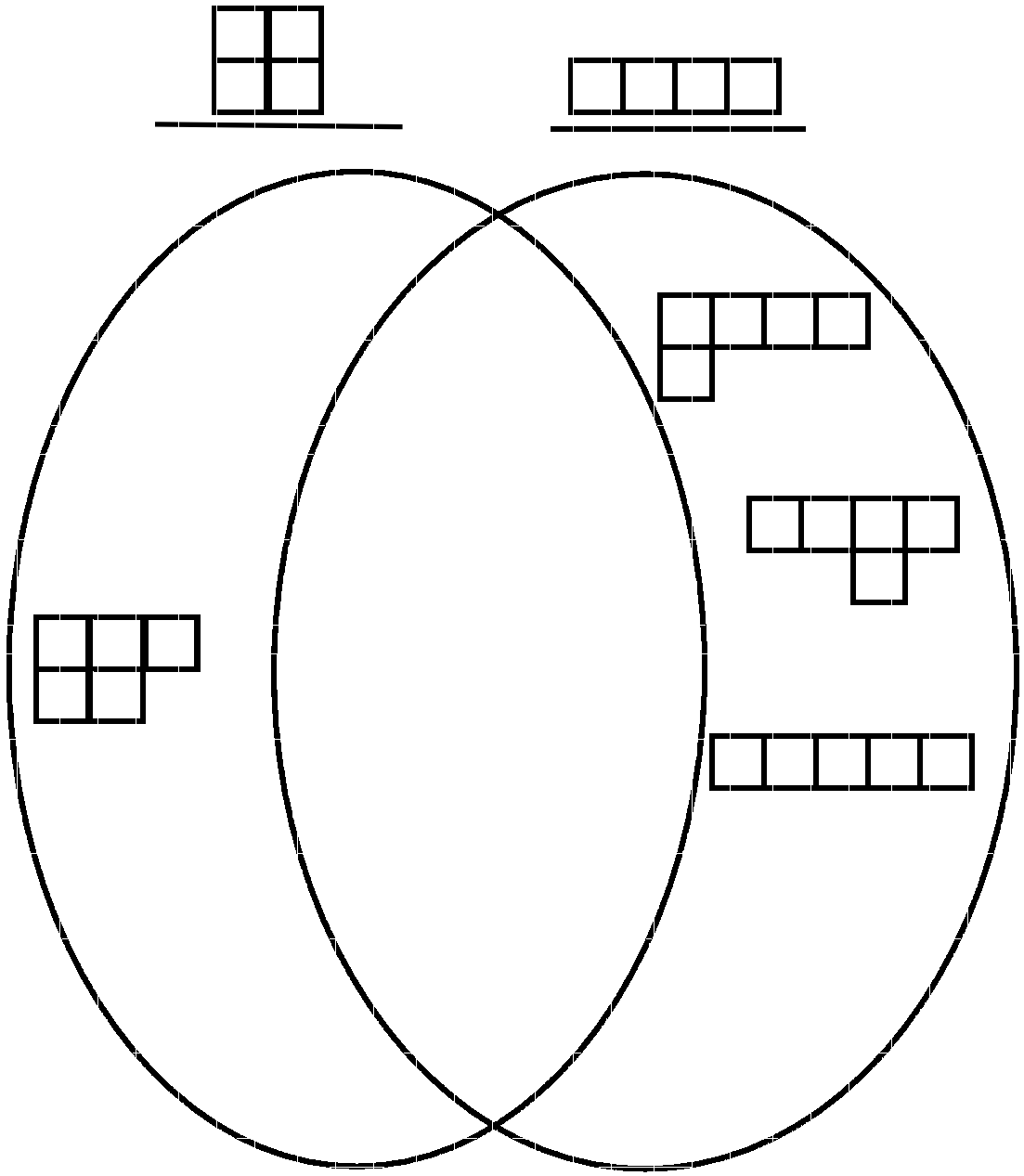
- most symmetrical tetromino generates the least pentominoes

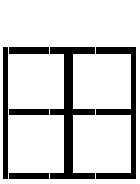
Task #4

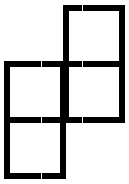
Title: ***Pentominoes Created from Tetrominoes***

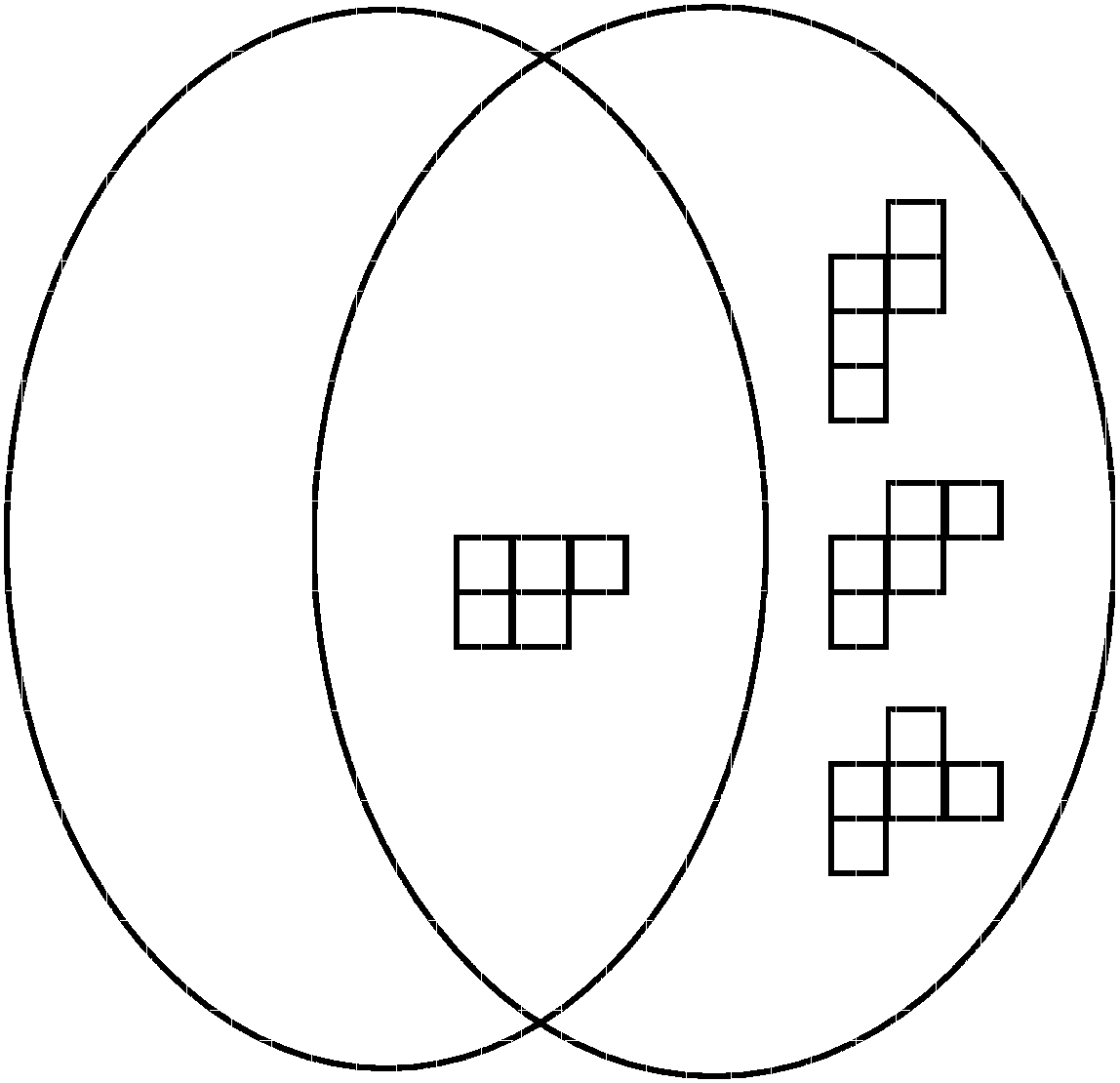
Choose any two tetrominoes to complete the sorting problem.

Categories: **Tetromino "A"** **Tetromino "B"**

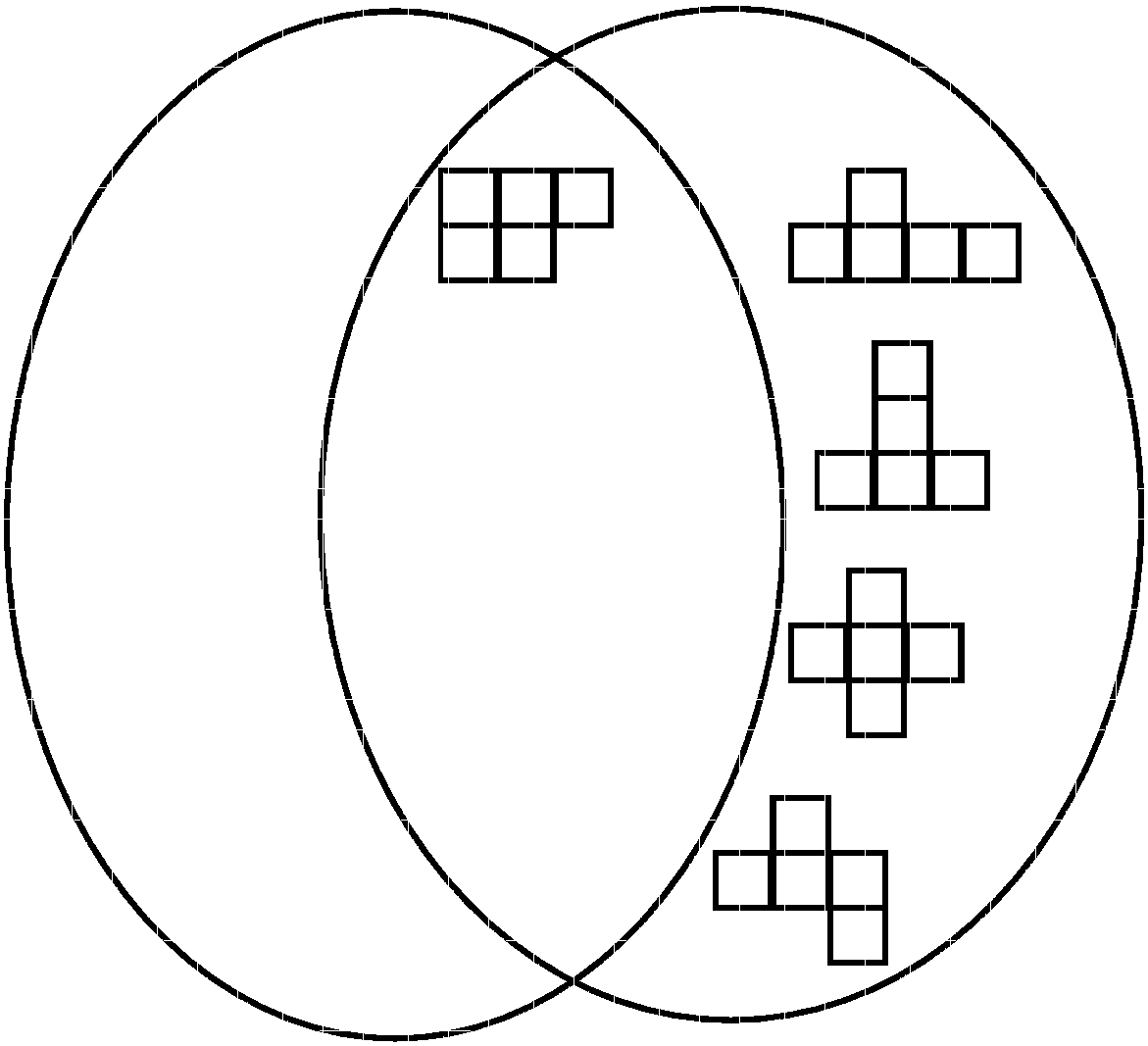


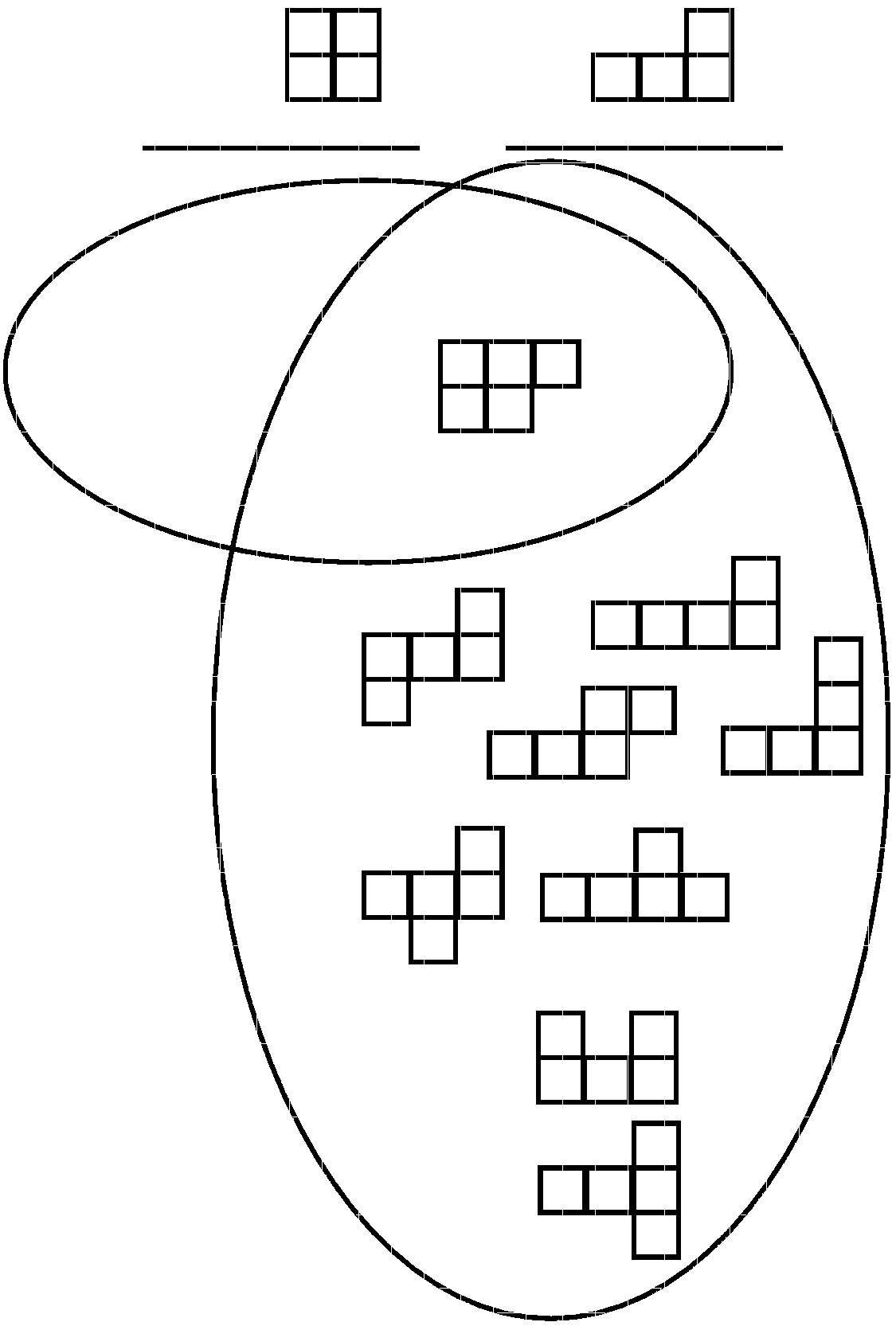


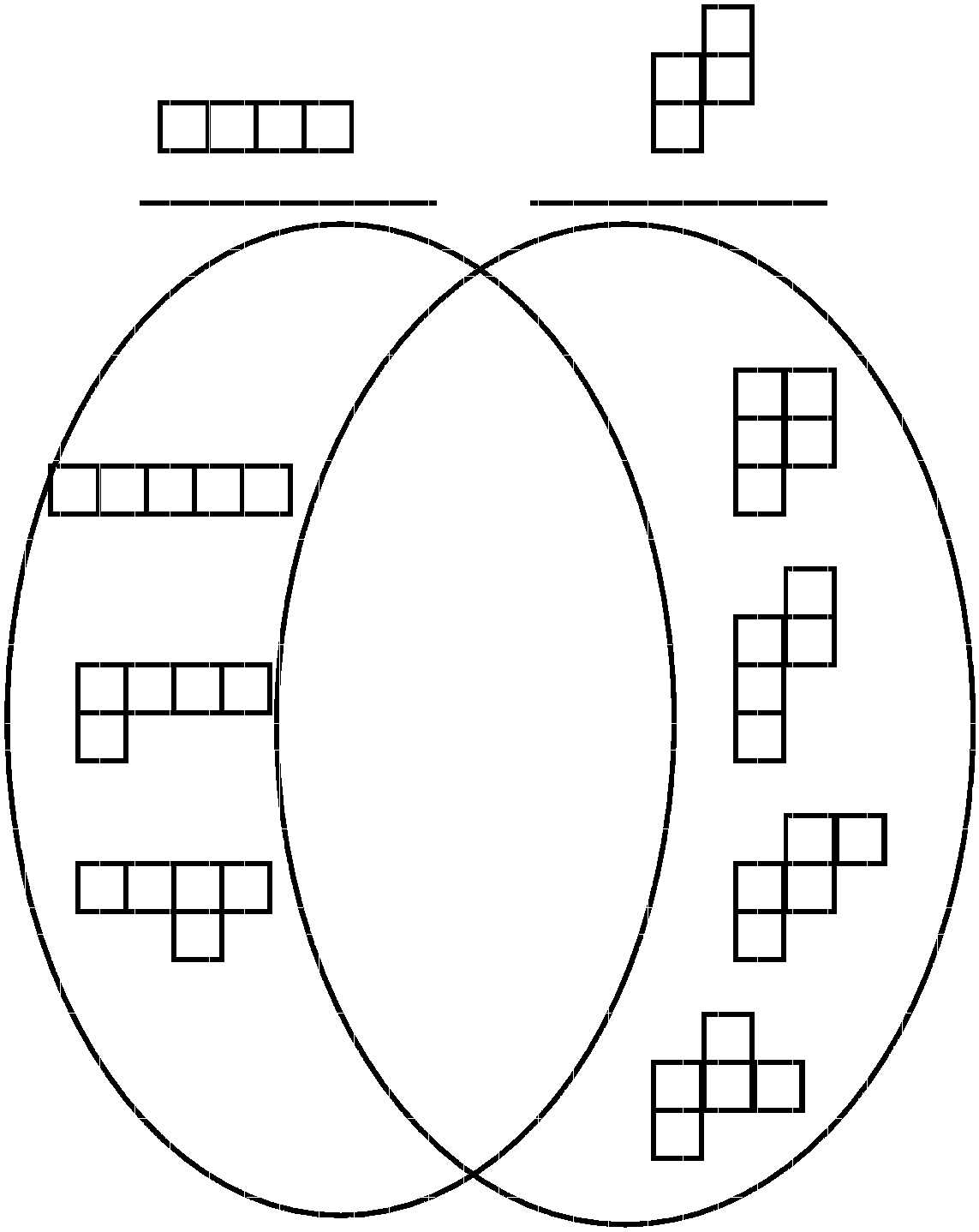


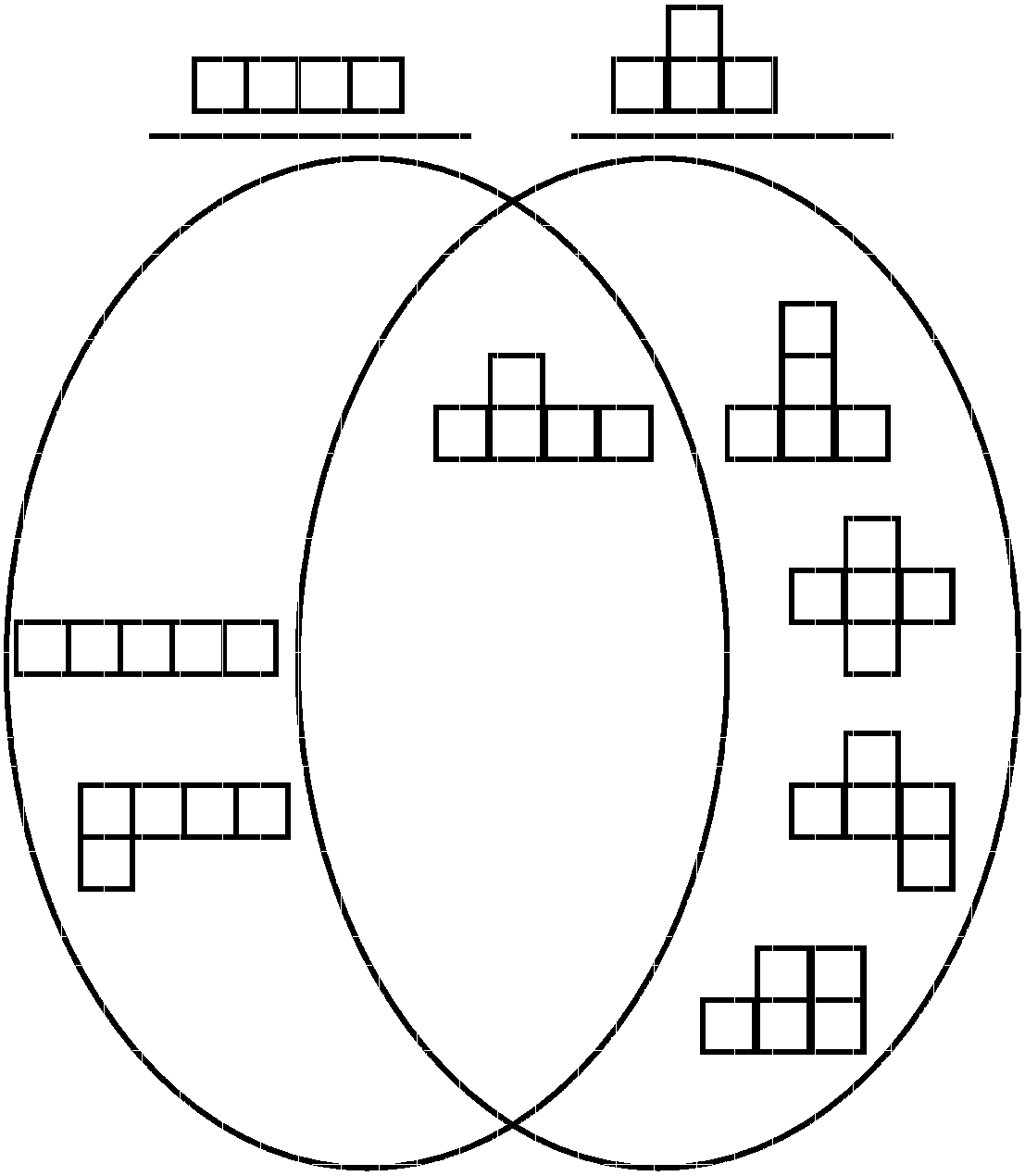


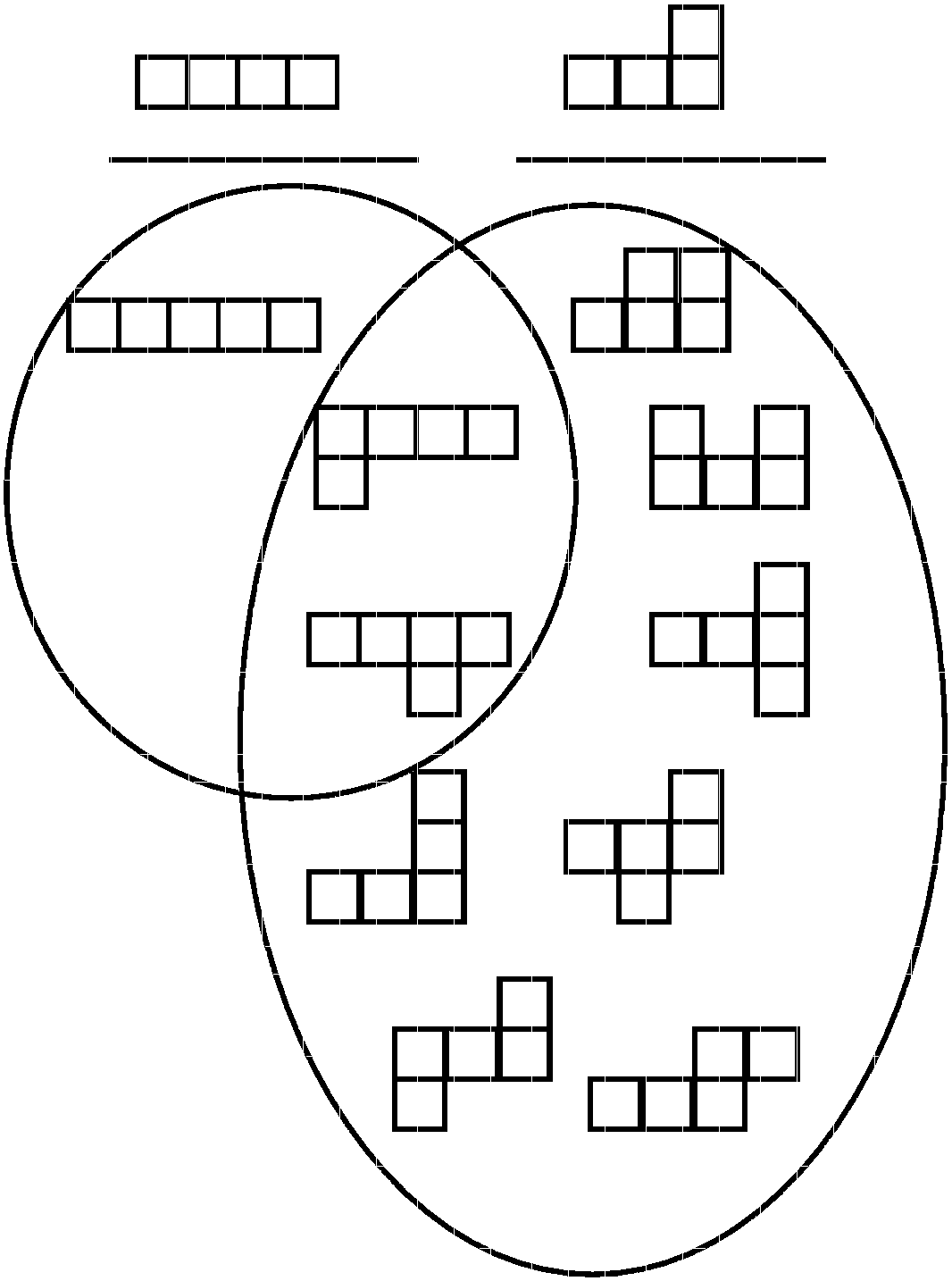


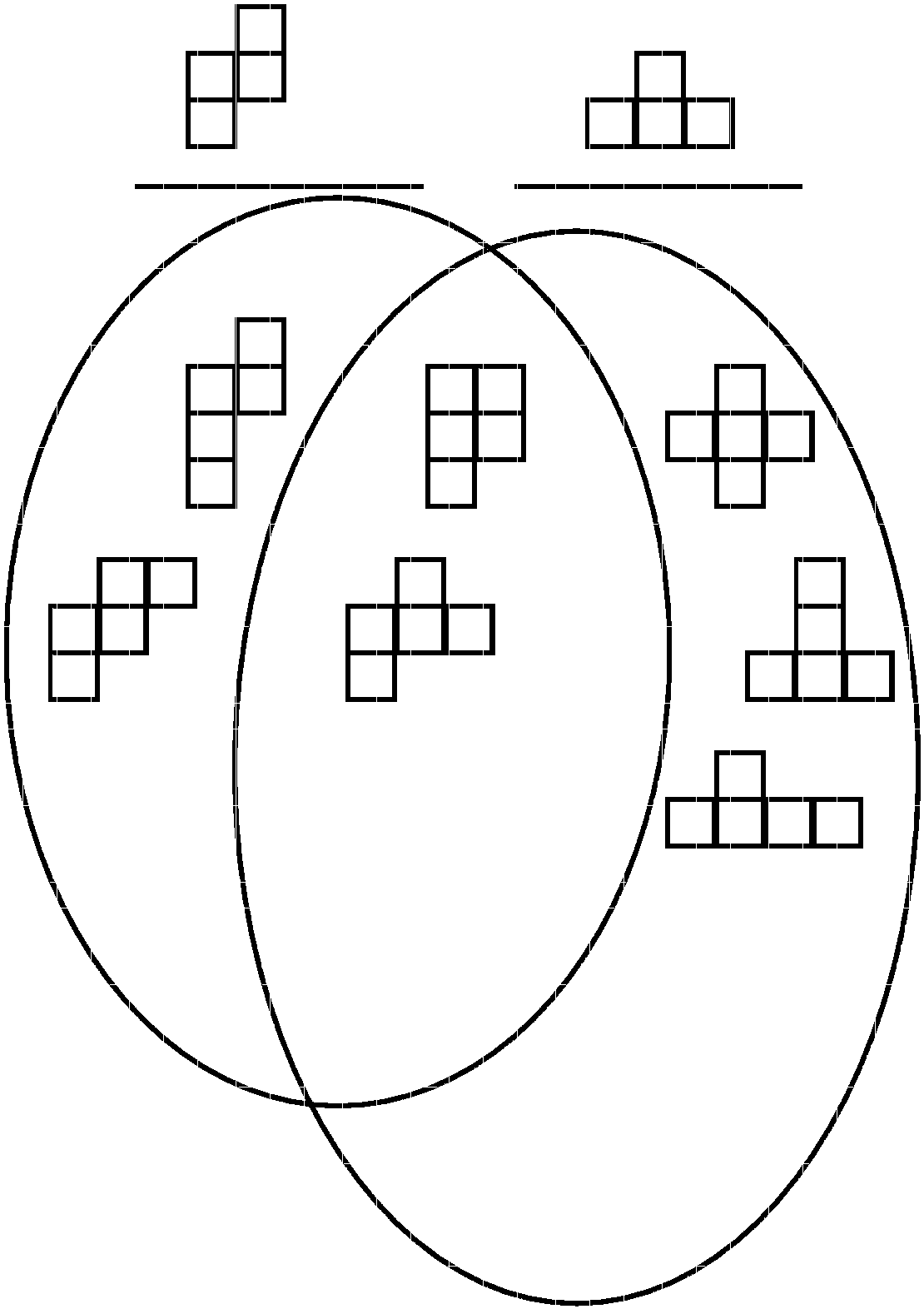


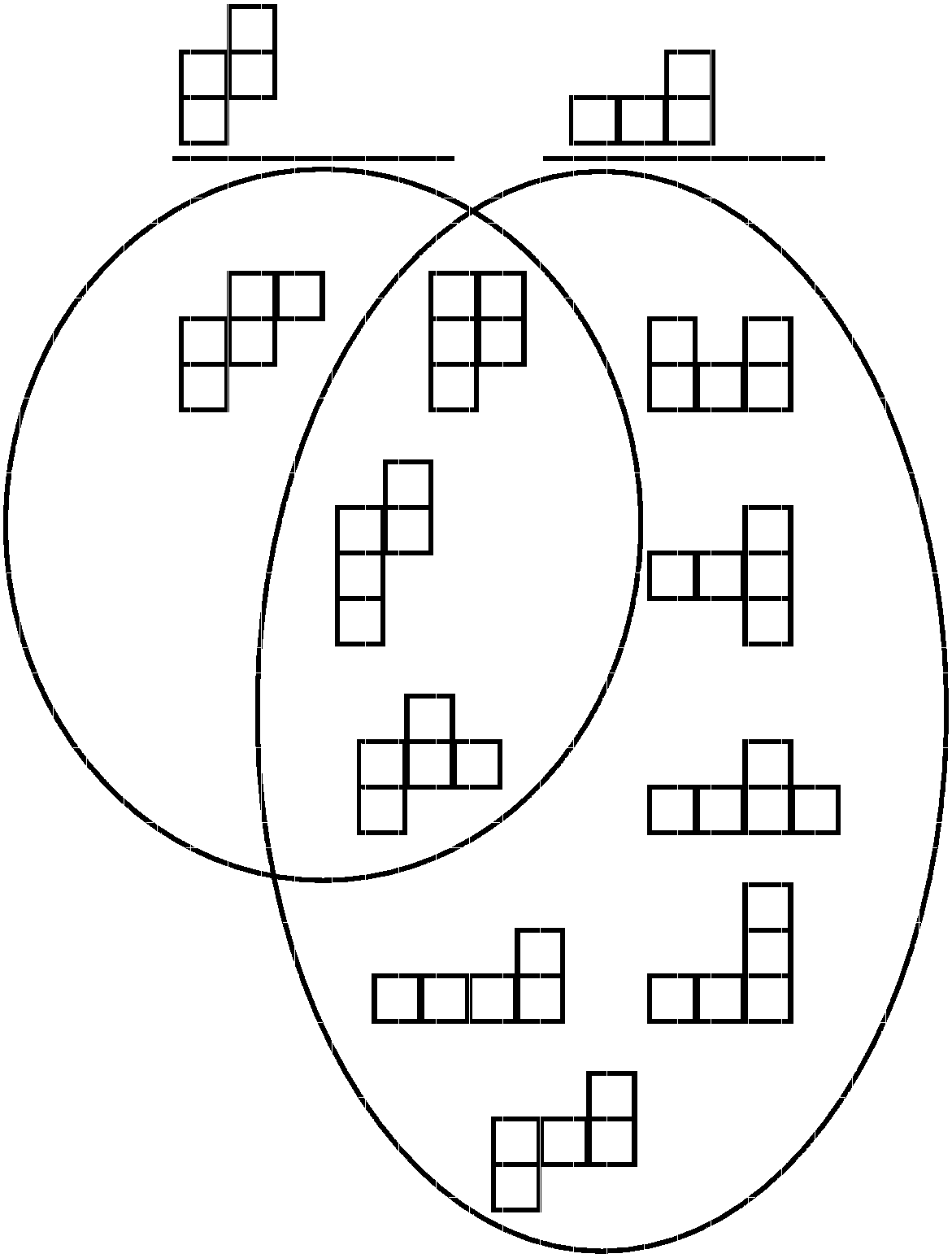


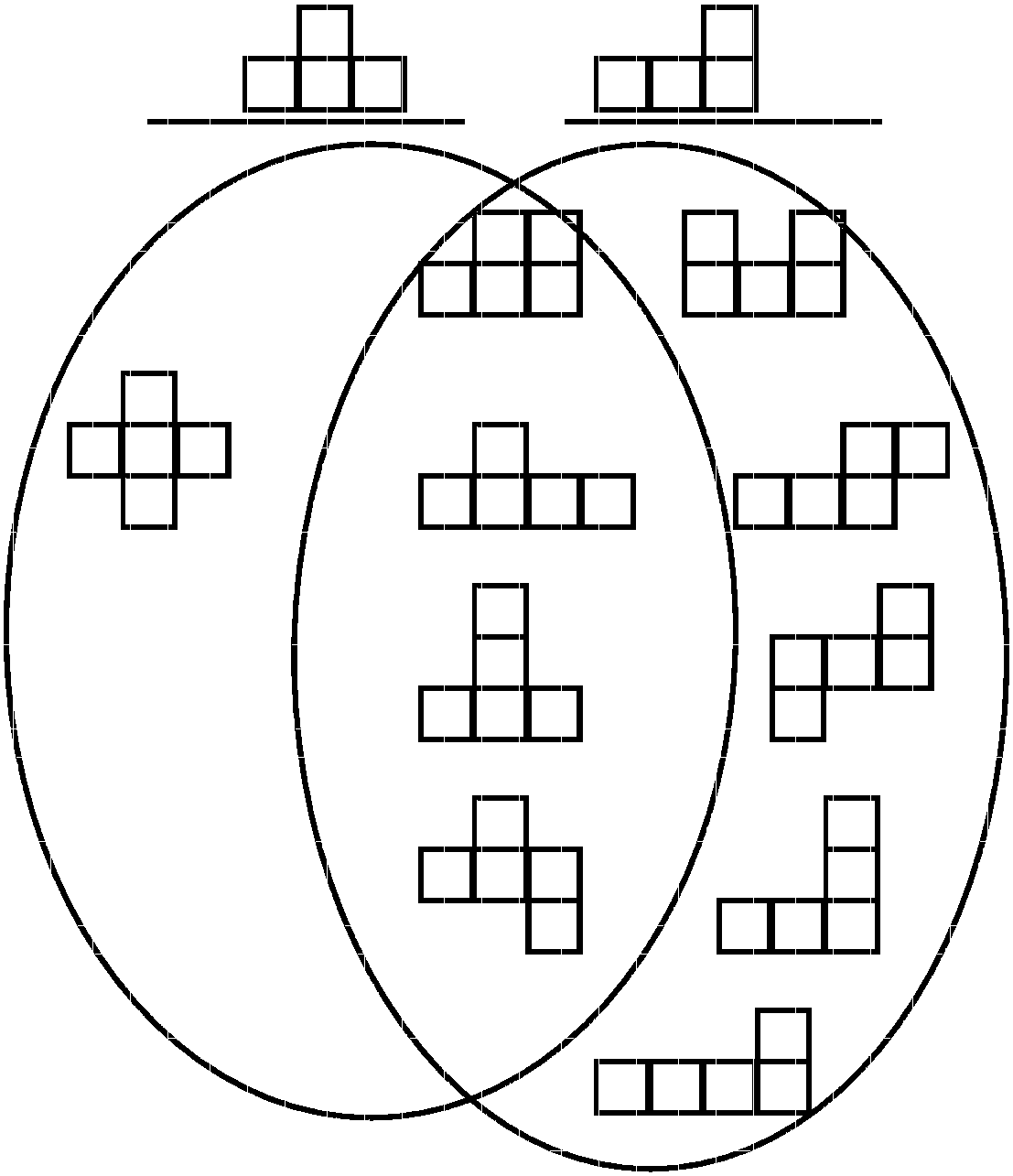






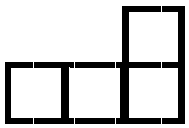


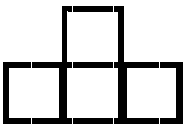




Task #4 - Questions

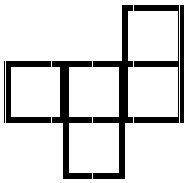
a) Which two tetrominoes will generate the most pentominoes in common? (Look at the center region of your Venn diagram.)





b) How can you predict which two pentominoes will generate the most hexominoes in common?

- the two least symmetrical hexominoes

(My conjecture:  **and**  **)**

Concluding Question

Is there a rule for the sequence of the number ____ominoes for each stage? Investigate.

There is NO numerical pattern!

# of Squares	____omino	# of ____ominoes
1	unomino	1
2	domino	1
3	triomino	2
4	tetromino	5
5	pentomino	12
6	hexomino	