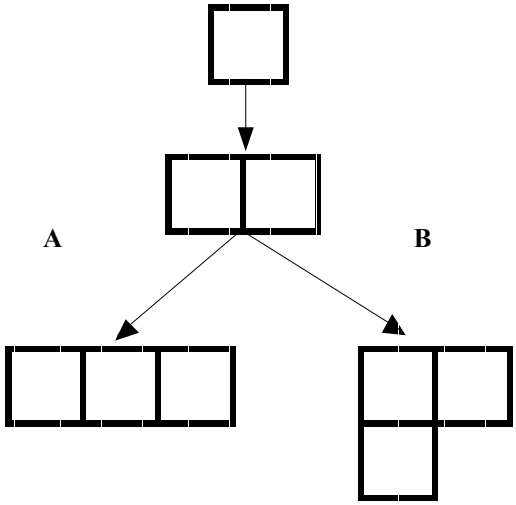
Sorting the "___ominoes"

Investigation (use square tiles or cube-a-links)

Start with one square.

To construct the only "do"mino
(a figure made up of two squares
connected along complete edges),
add one square.

To construct a "tri"omino
(a figure made up of three squares
connected along complete edges),
add one square to a domino.
There are two ways to do this.



Task #1

Construct **as many different** "tetrominoes" as possible by adding one square to triomino "A". Draw these tetrominoes in the space below.

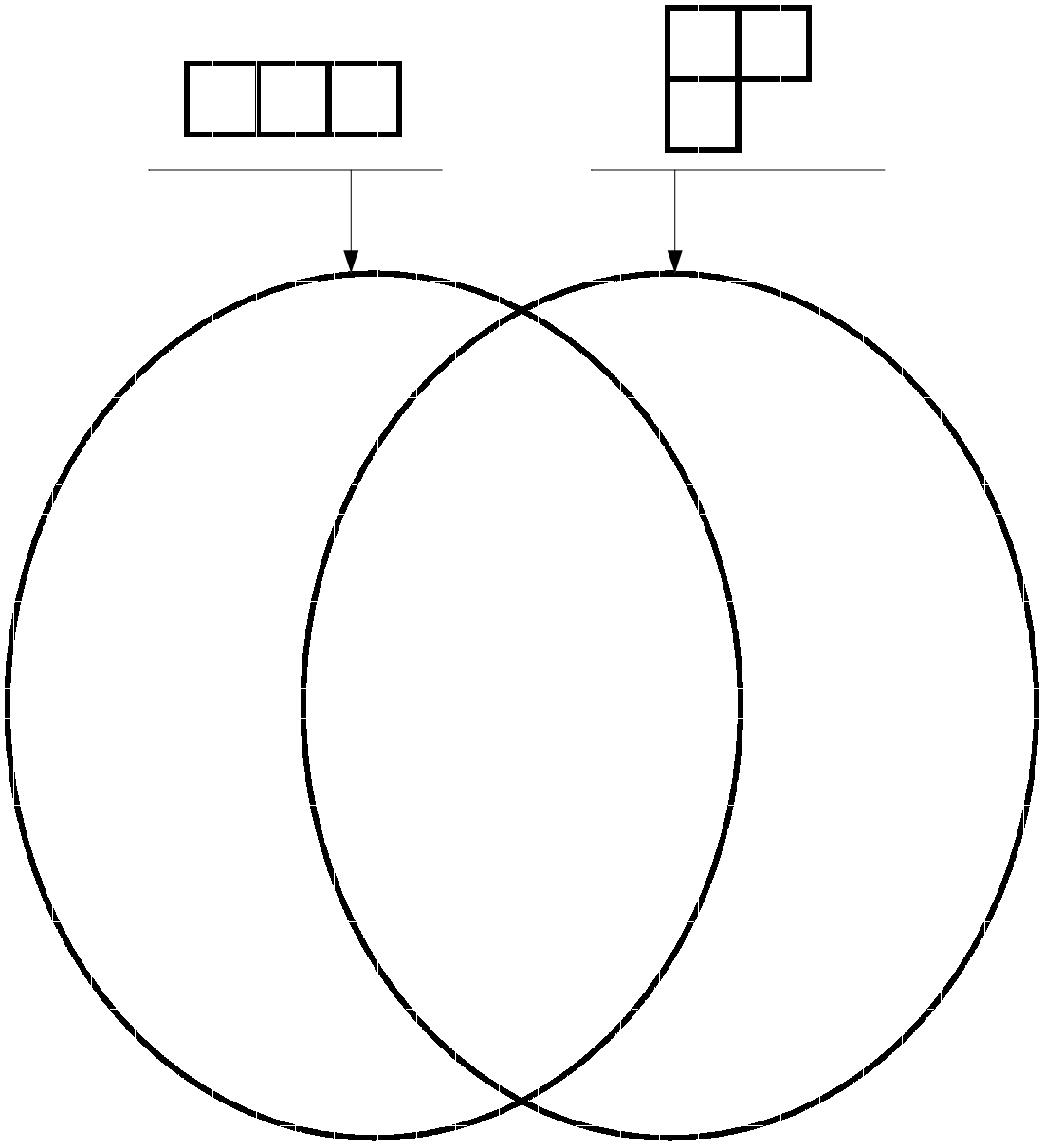
Construct **as many different**
tetrominoes in the space below.

Task #2

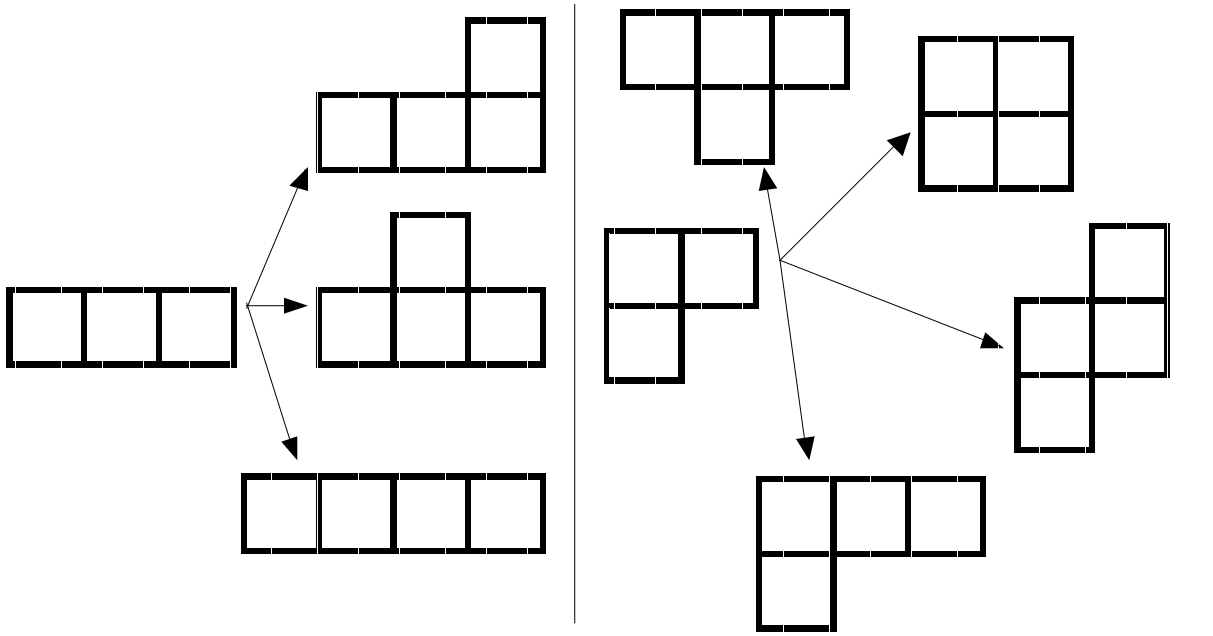
Redraw the tetrominoes from task #1 in the appropriate regions of the Venn Diagram..

Title: ***Tetrominoes Created from Triominoes***

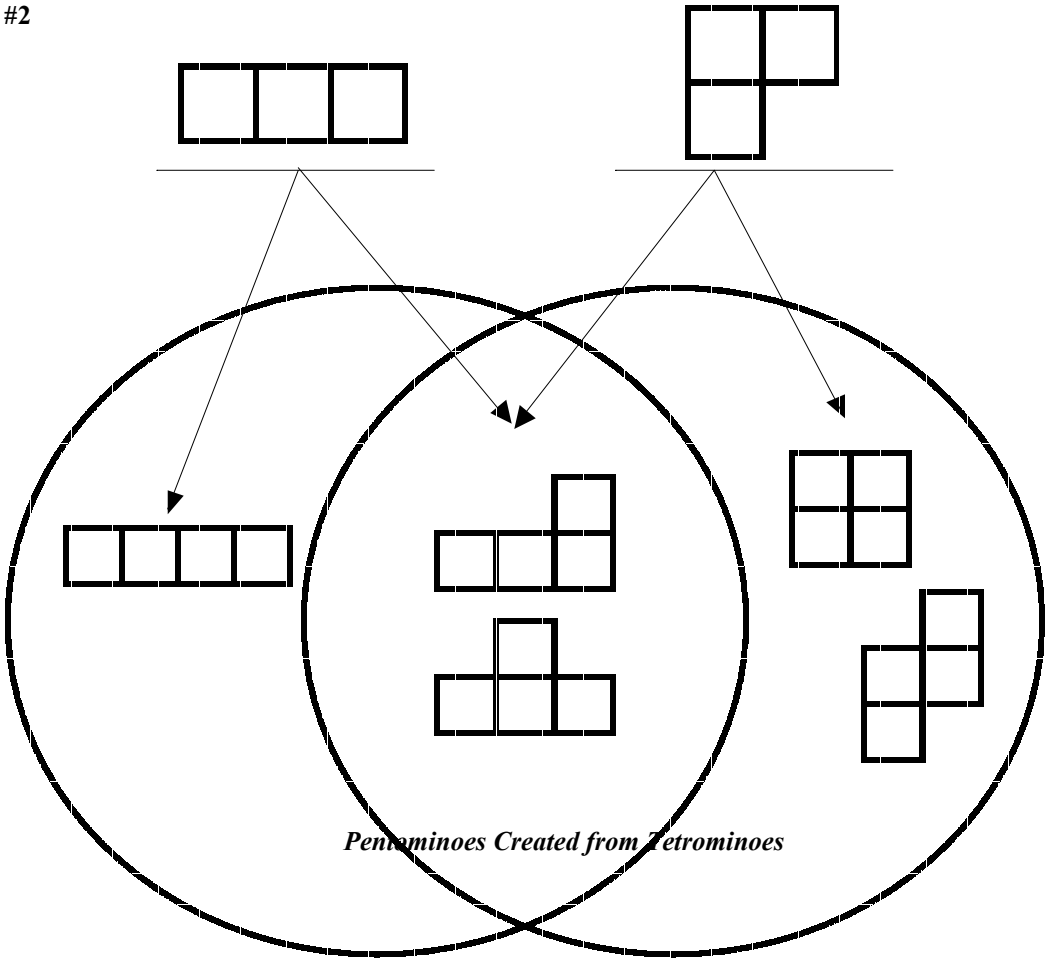
Categories: **Triomino A** **Triomino B**



Task #1



Task #2

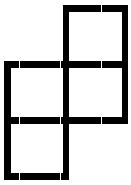


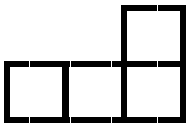
Pentominoes Created from Tetrominoes

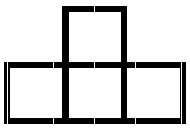
Task #3

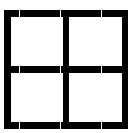
Use each tetromino in turn to construct **as many different** "pentominoes" (a figure made up of five squares connected along complete edges) as possible by adding one square. Draw them in the space below.











Task #3 - Questions

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

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)?

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

Task #4

Fill in the following Venn Diagram.

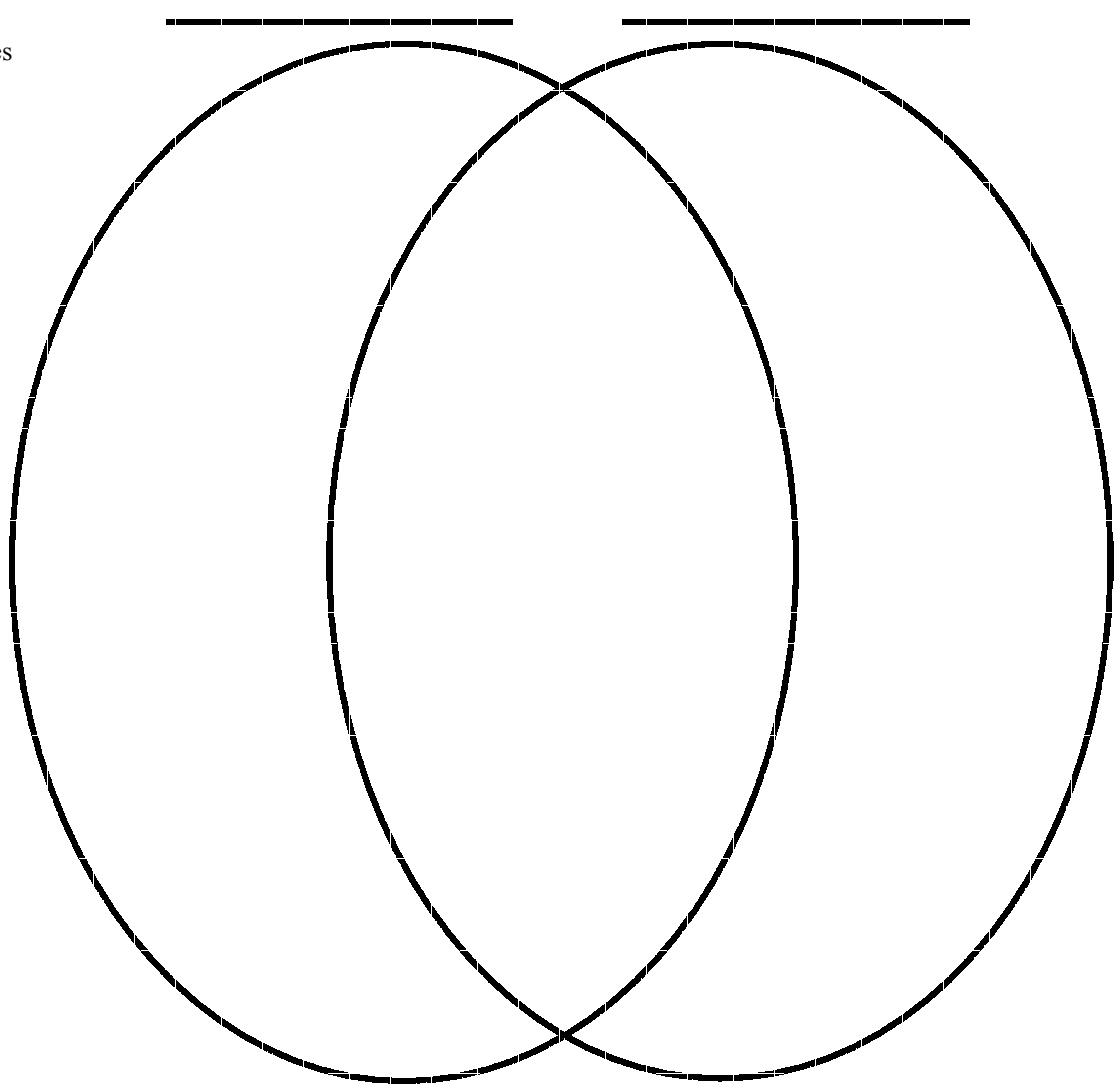
Title: ***Pentominoes Created from Tetrominoes***

Choose any two tetrominoes to complete the sorting problem.

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

Draw your selections here.

Draw the pentominoes you created from each tetromino in the correct region.



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?

Concluding Question

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