Finding Visual Patterns

Task Name: Colored Tiles

Task Description: In this task, students will write expressions to describe the number of colored tiles in different tile arrangements.

Standards Addressed: HSA-SSE.A.1 , HSA-SSE.A.1.a , HSA-SSE.A.1.b , HSN-Q.A.2

Grade Level: 9

Content Focus: Modeling growing patterns with equations.

Prior Knowledge: Students should have prior knowledge using variables to describe a changing quantity.

Before the Launch:

Use printed images of each tile pattern and place them in a plastic cover at the center of each VNPS . Ask students to take out a paper when they calculate the number of tiles required for each pattern.

Lunch:

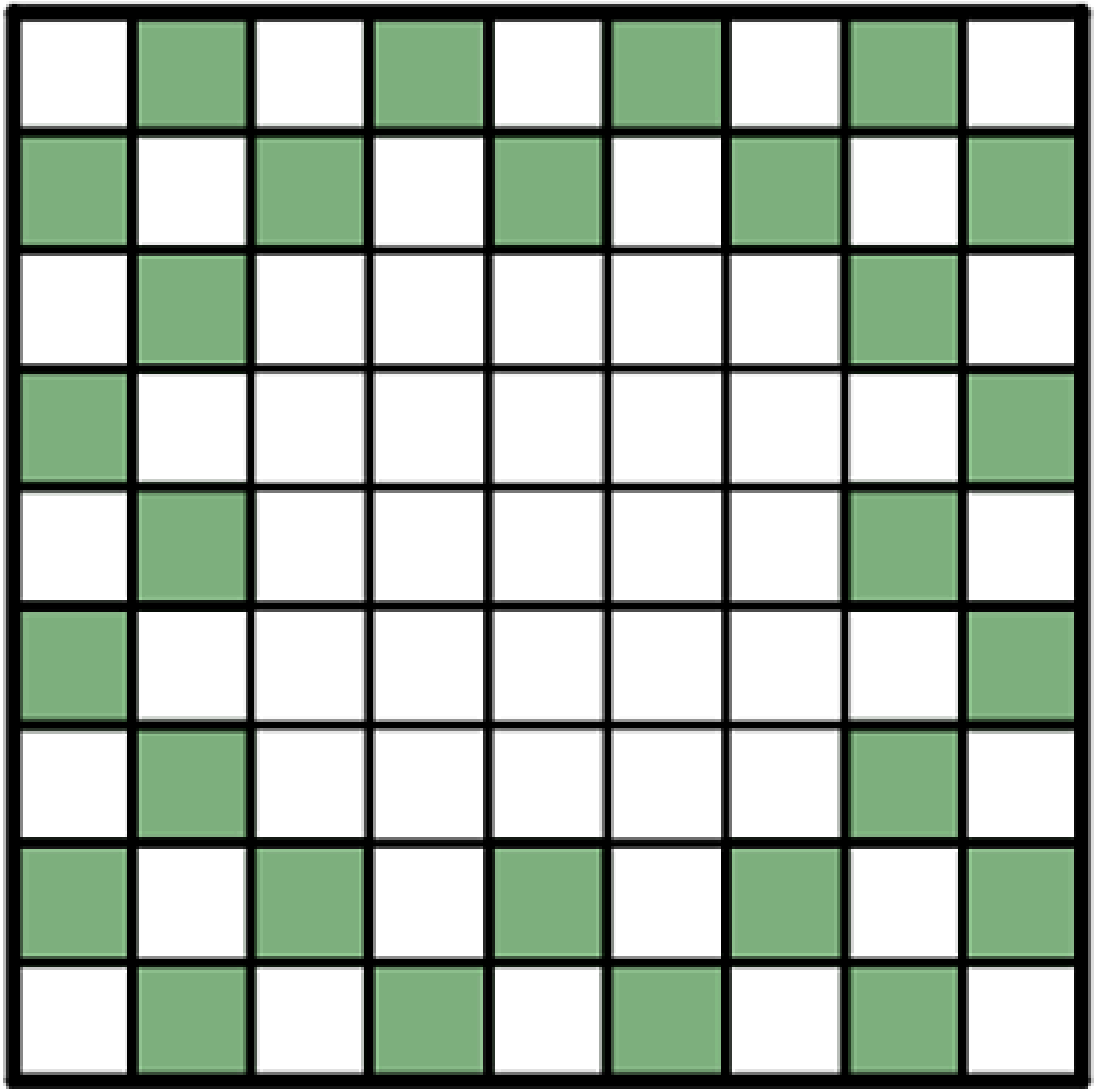
Teacher: I am planning to reconstruct my kitchen floor and have selected several tile patterns. I need assistance in calculating the number of tiles of each color required for each pattern. Would you like to help me?

Student :Yes,....

So For each pattern, please identify a way to group tiles efficiently to facilitate quick counting.

Type 1:

1.



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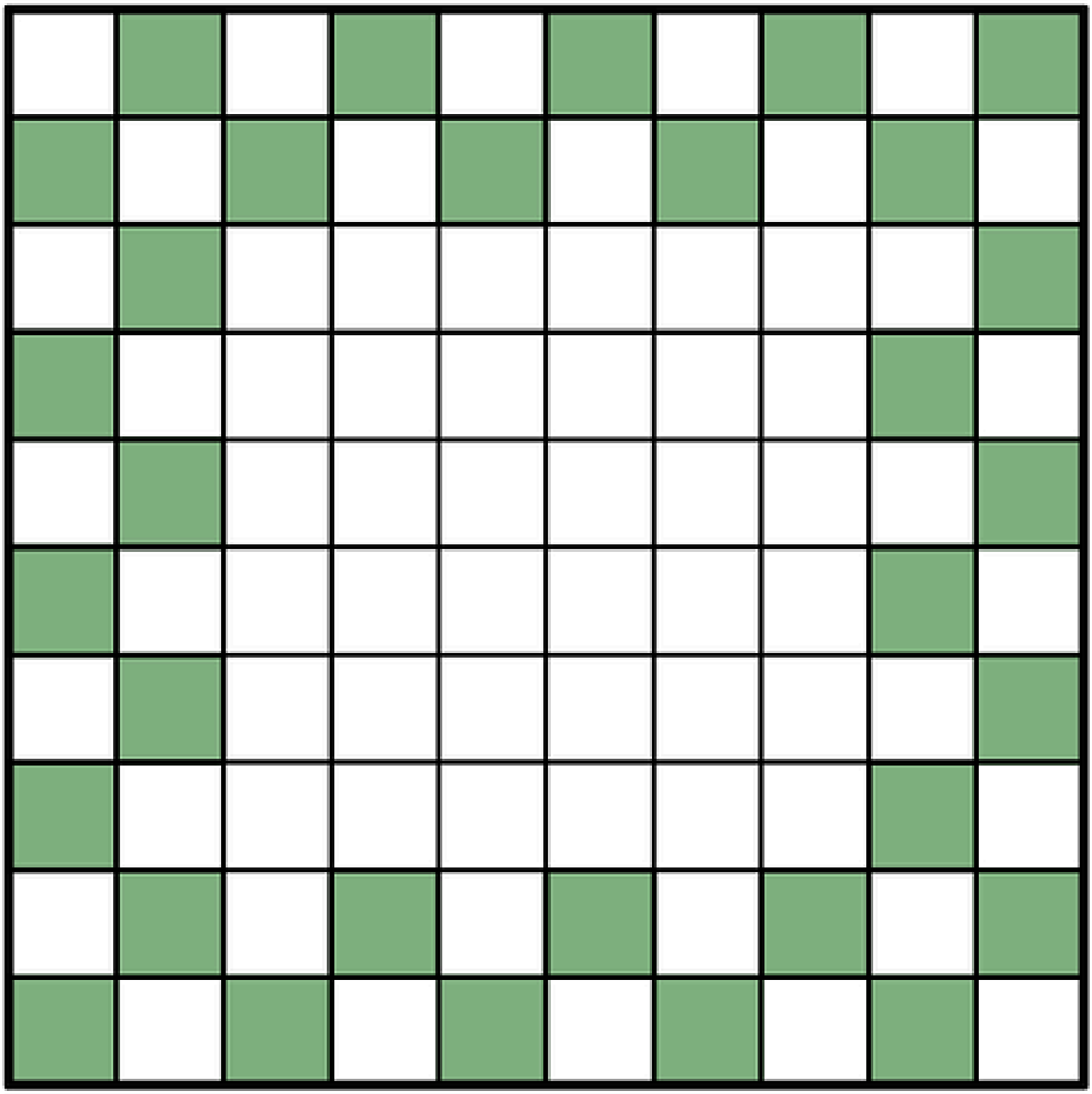

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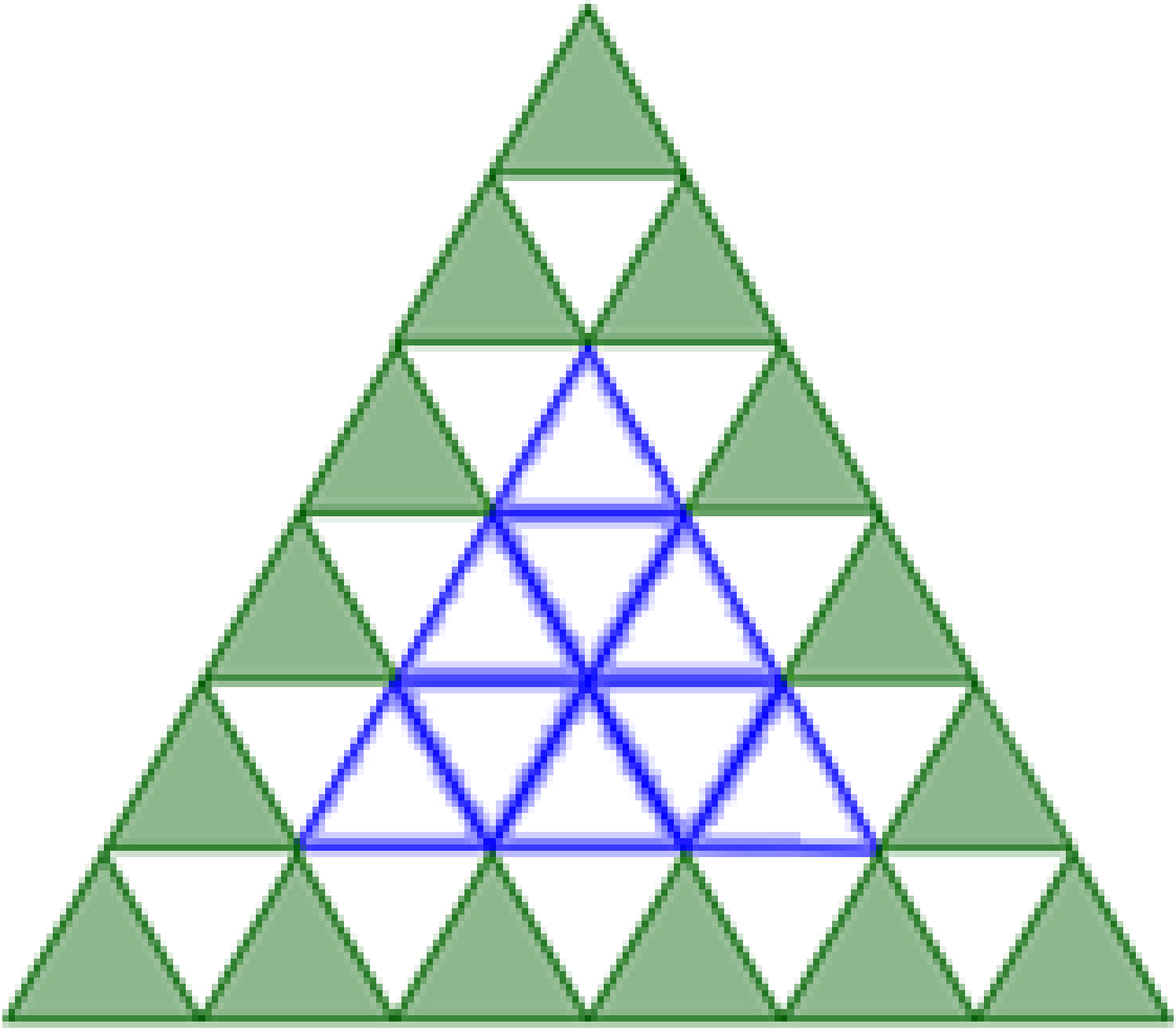

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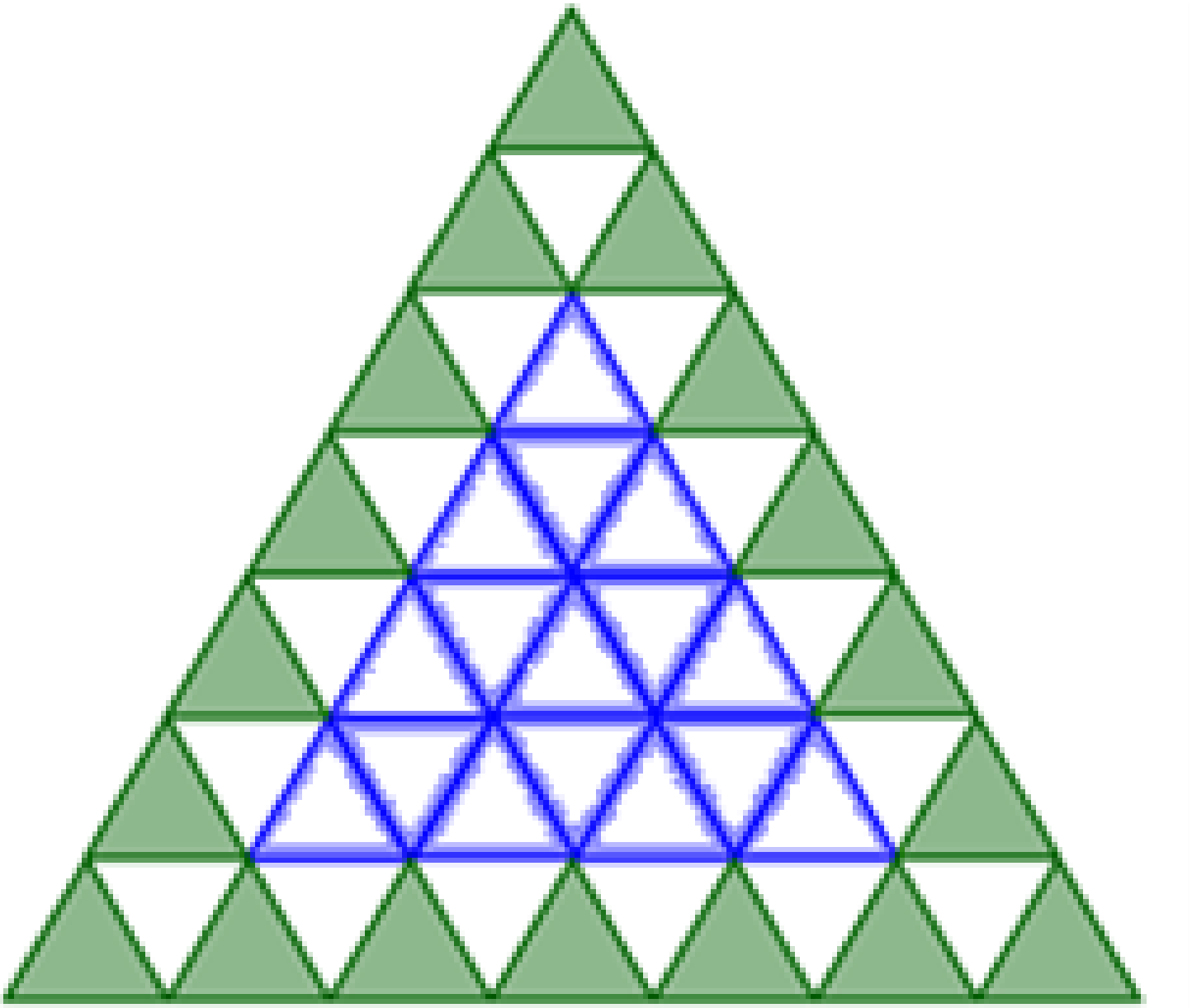

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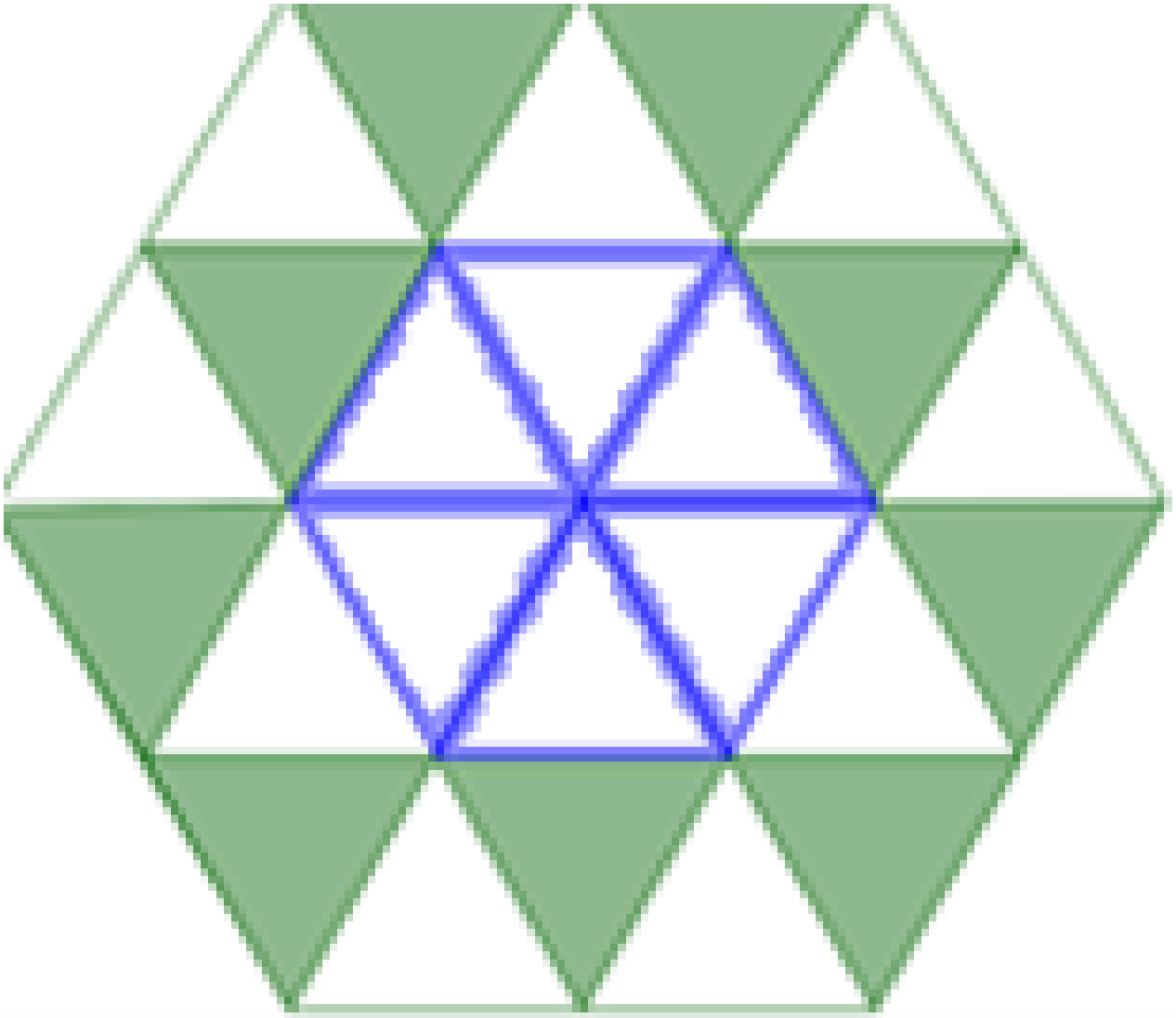

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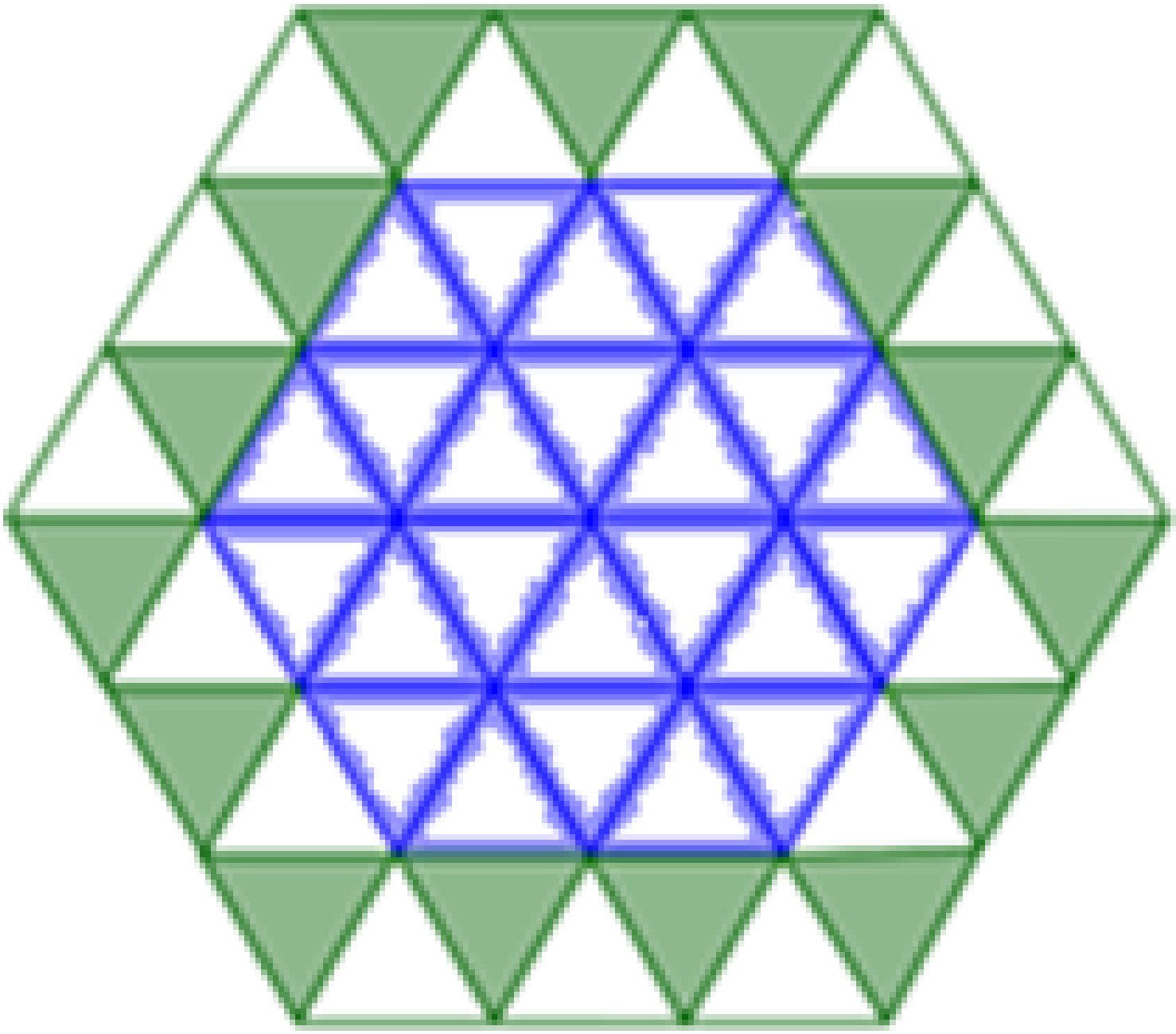

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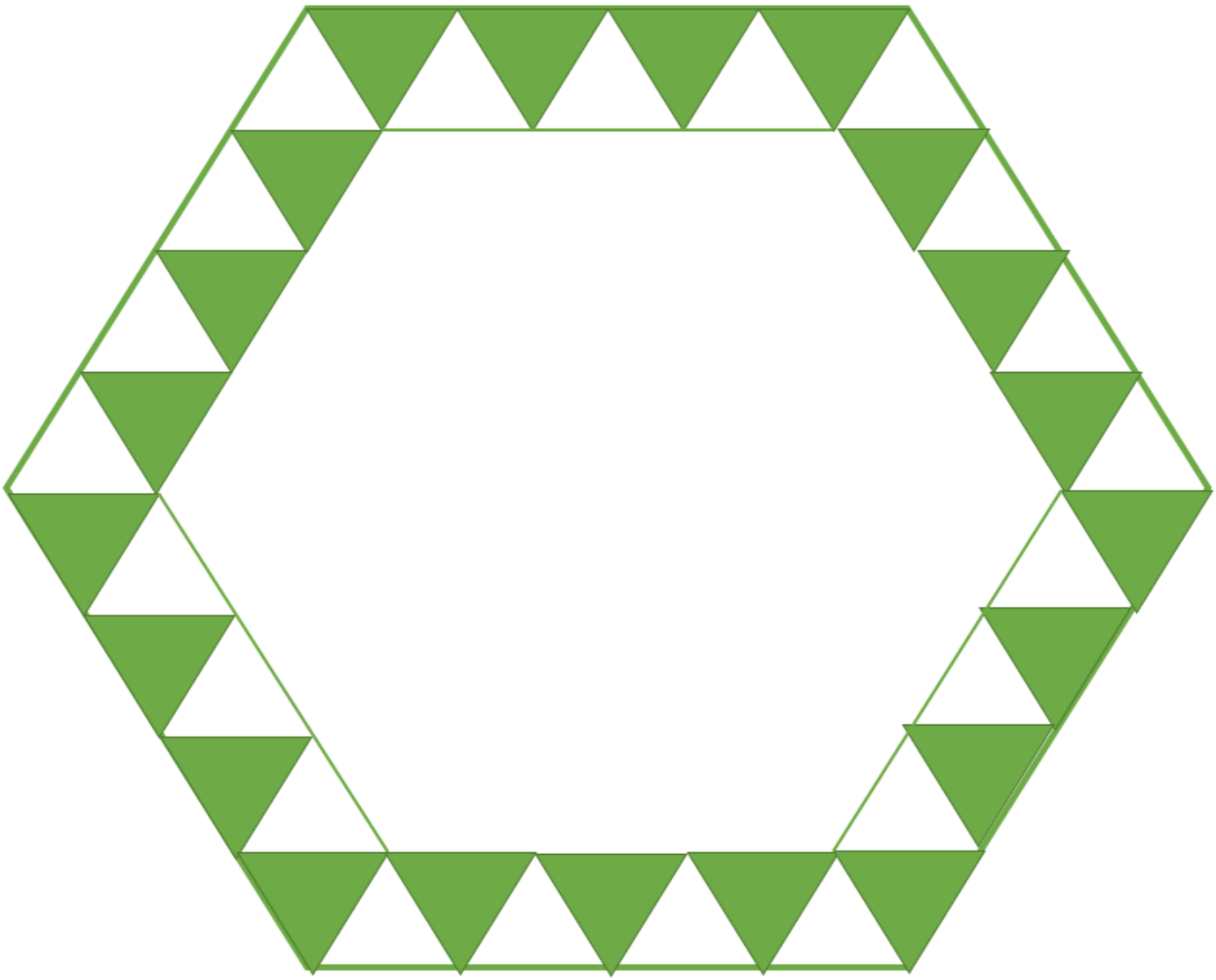
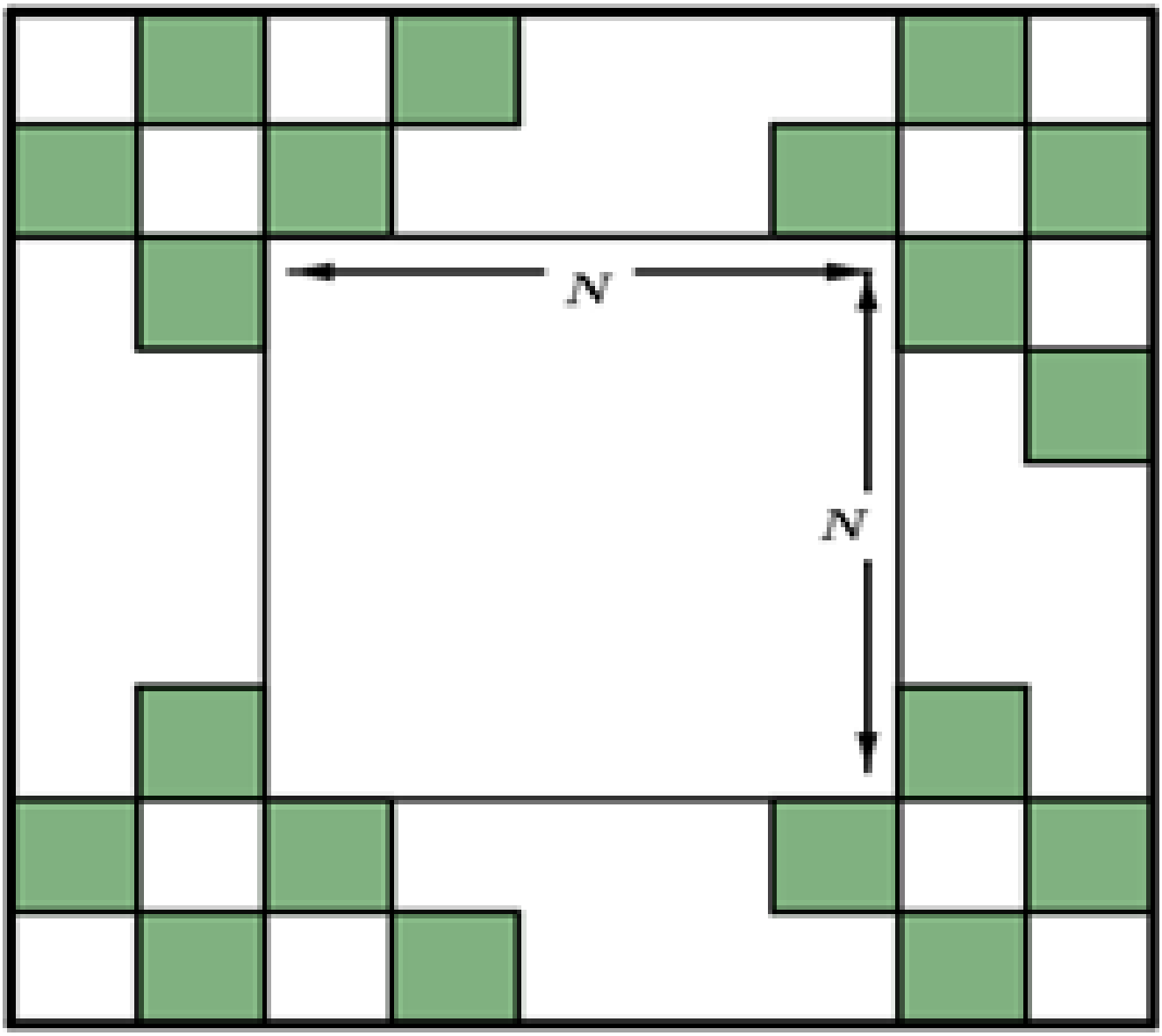


Type 2:

8..



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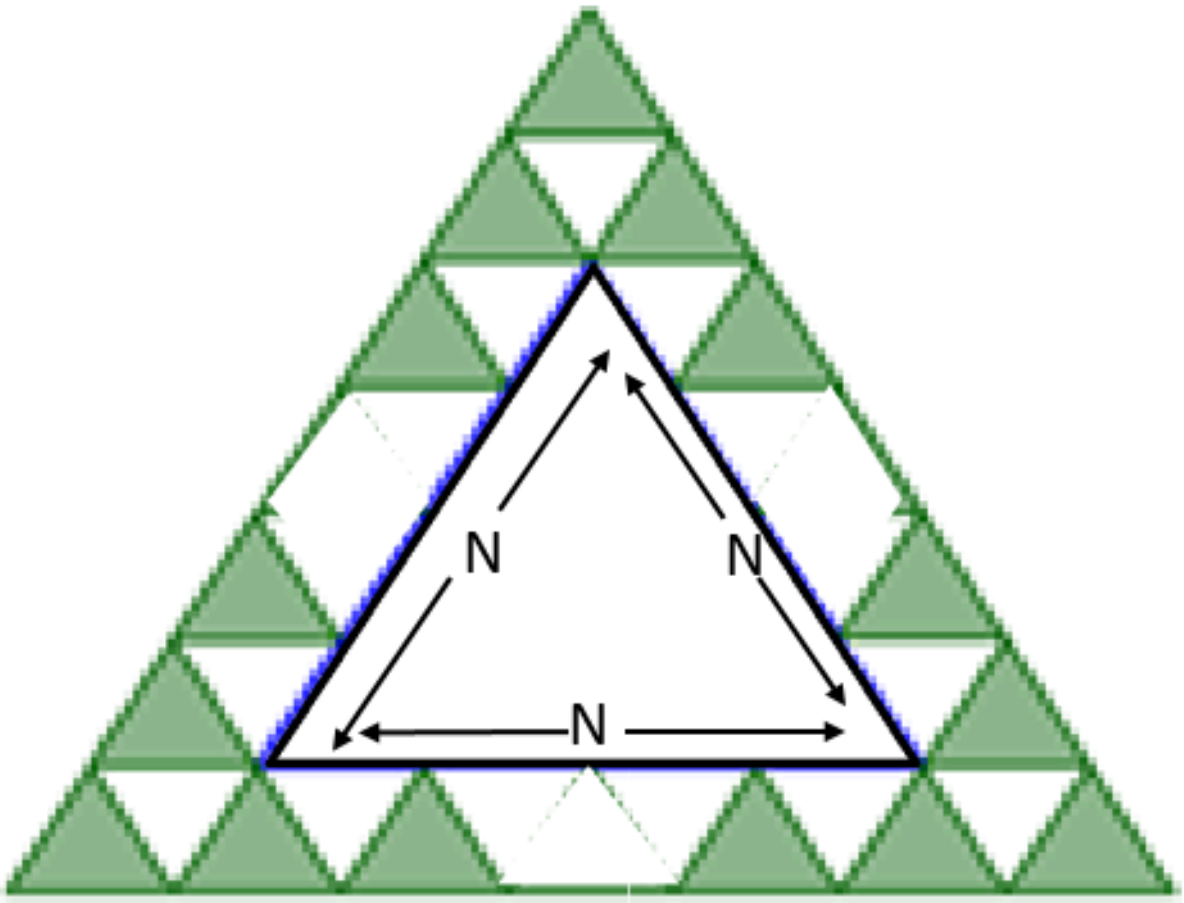
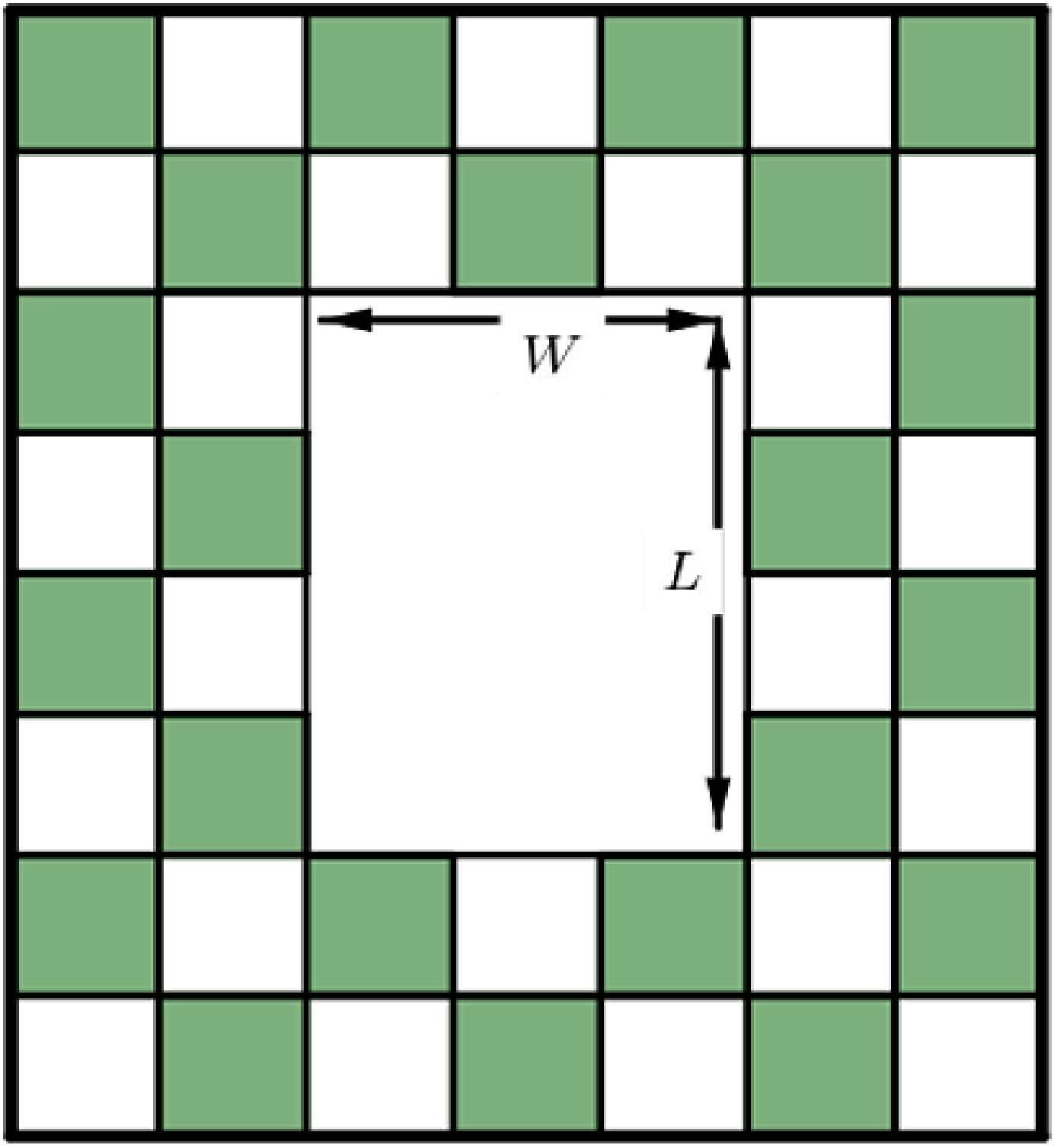
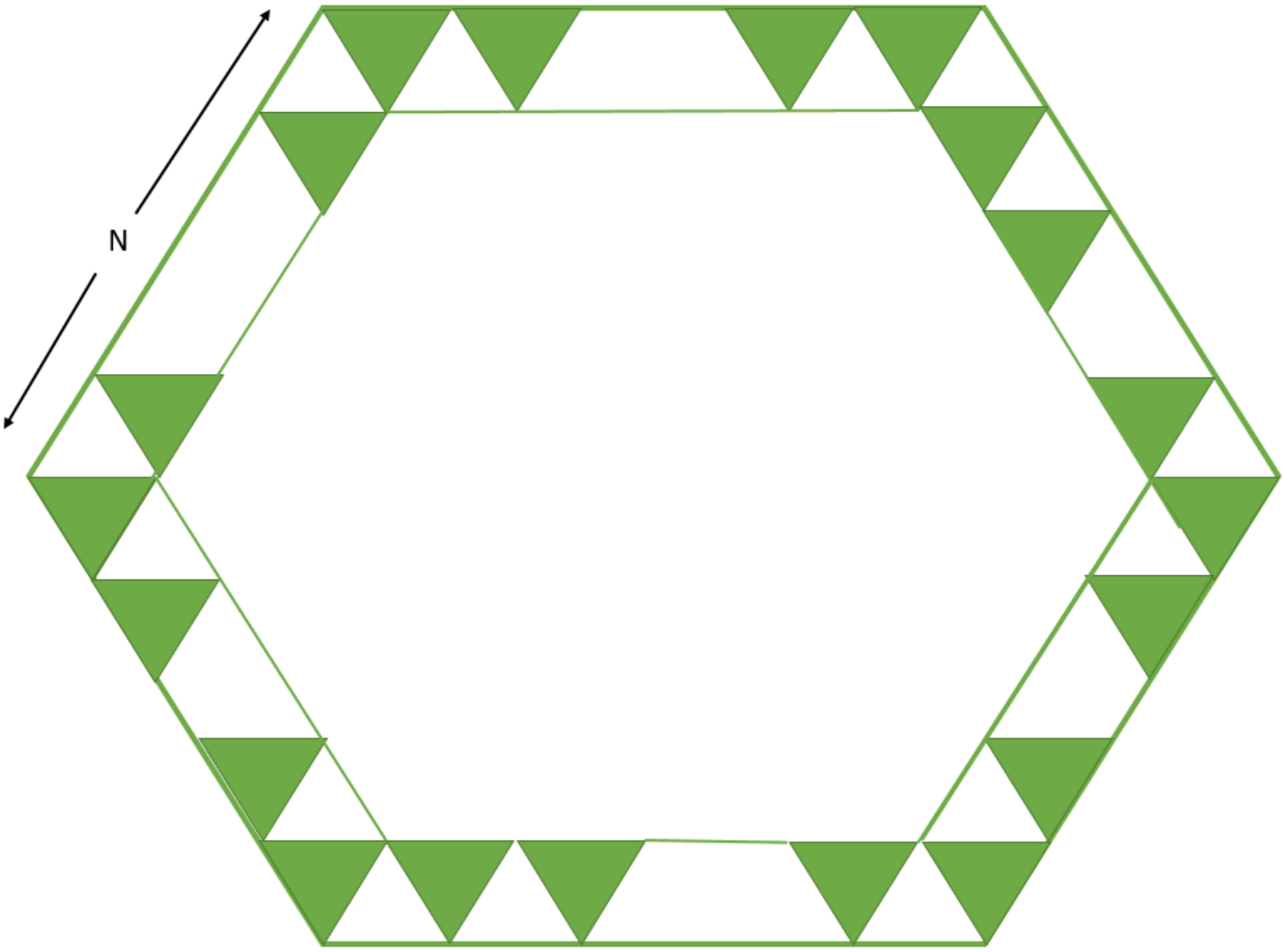


Type 3

10.



11.



Consolidation :

(Depends what you have on the boards do Gallery walk or send them for make your own pattern on the group work after a short look at the all boards)

The steps that we follow to counting the number of tails when we have size n: ● **use color to make your thinking ……..** ● **Look for equal ……... Notice the ……. of groups and the …… of the groups.** ● **Look for quantities that are ……. and quantities that are staying the same.** ● **Look for areas, especially rectangles and squares.** **(** changing, size, groups, number,visible)	**Example :**
Thought keeper:	**Make your own pattern with two different colored tails.** **size 5 ,** **size n:**

CYU-Today

1.

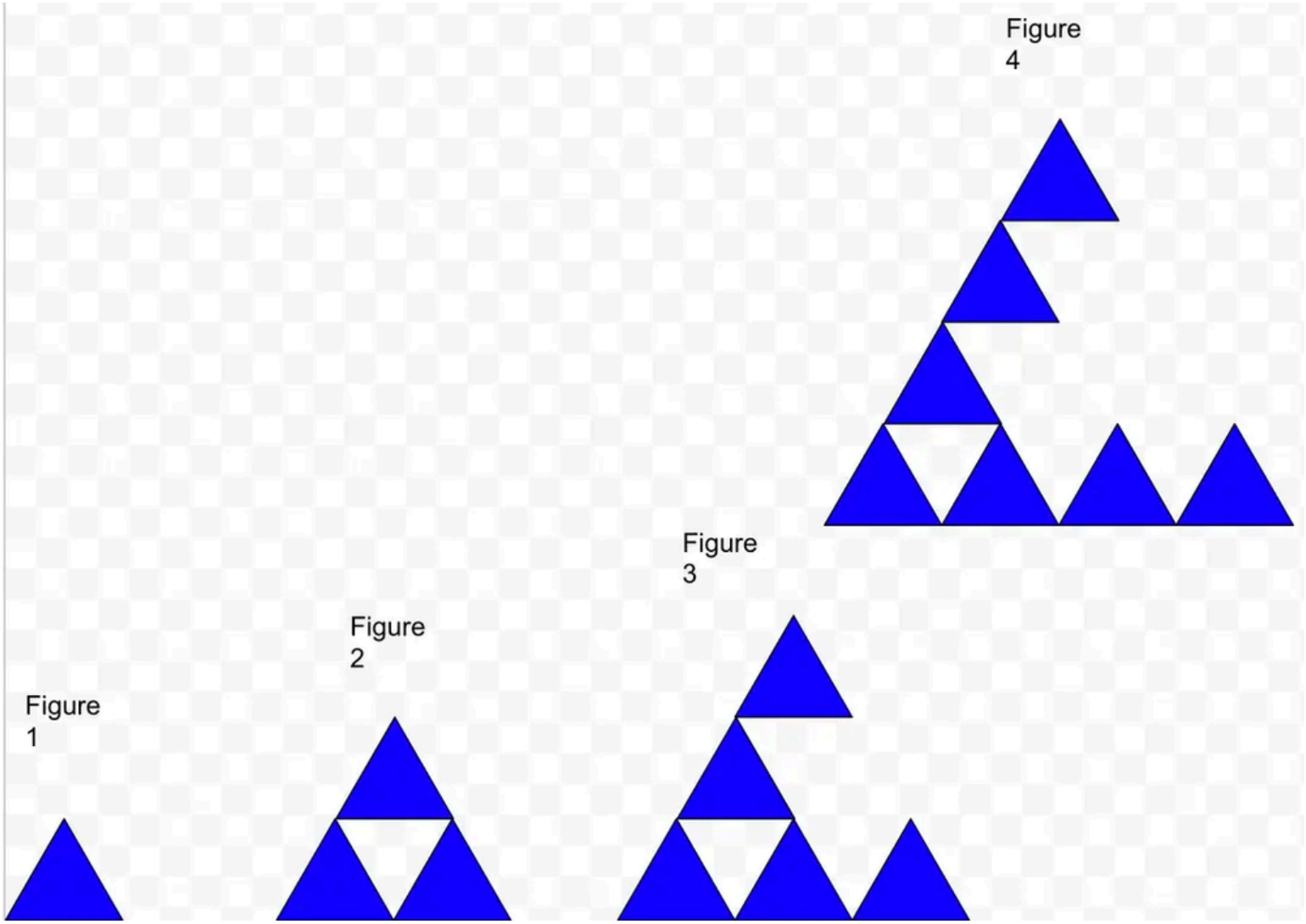
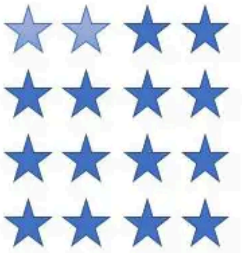
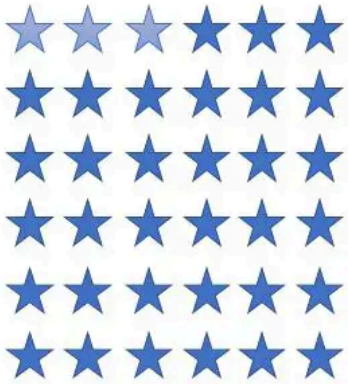


Figure n ?





2.

CYU- Past:

Unit 1, Lesson 1 – Ready, Go

Mild:

Ready

Evaluate each of the expressions below using the given value.

1. $3n + 7, n = 12$

2. $w^2 - 3, w = 4$

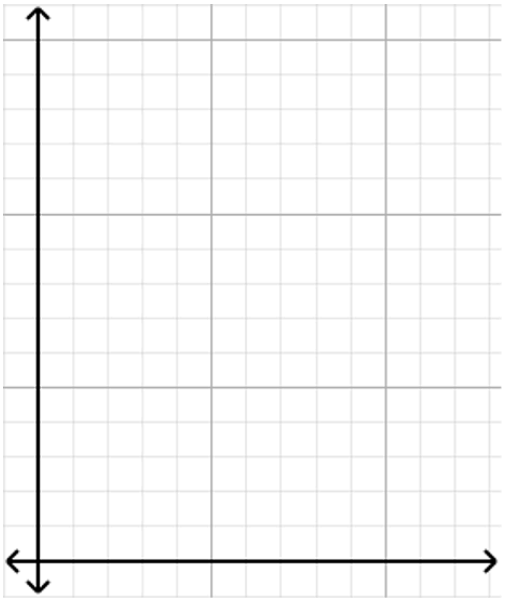
3. $5(t - 9) + 12, t = 20$

Go

Graph the ordered pairs from the tables on the given graphs.

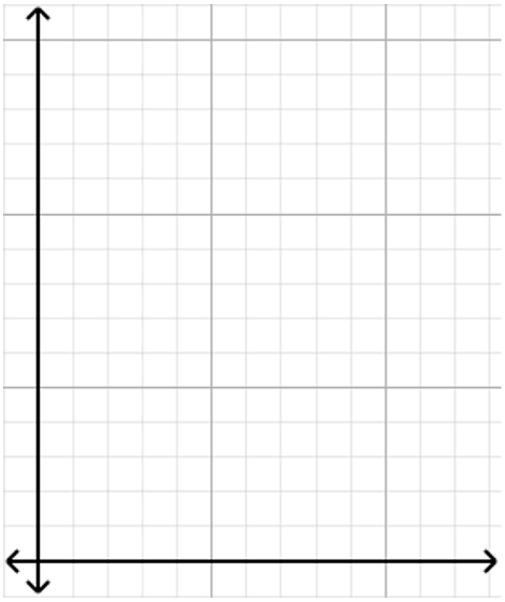
9.

x	y
0	4
2	8
3	10
5	14



10.

x	y
0	12
4	8
7	5
9	3



Spicy

Ready

Evaluate each of the expressions below using the given value.

4. $\frac{2(x+13)}{3}, x = 5$

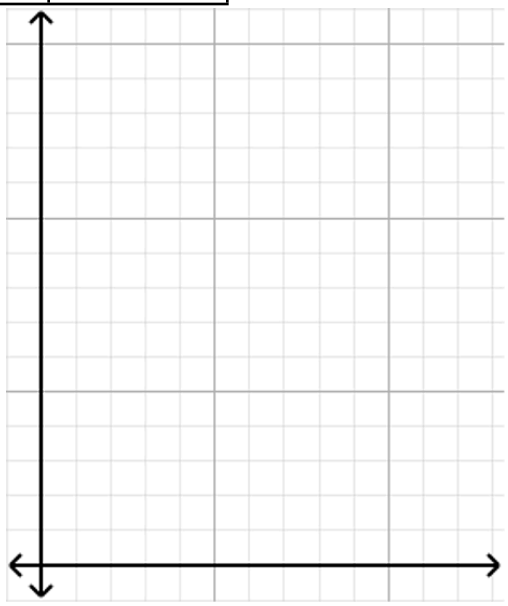
5. $3(6m - 17), m = 5$

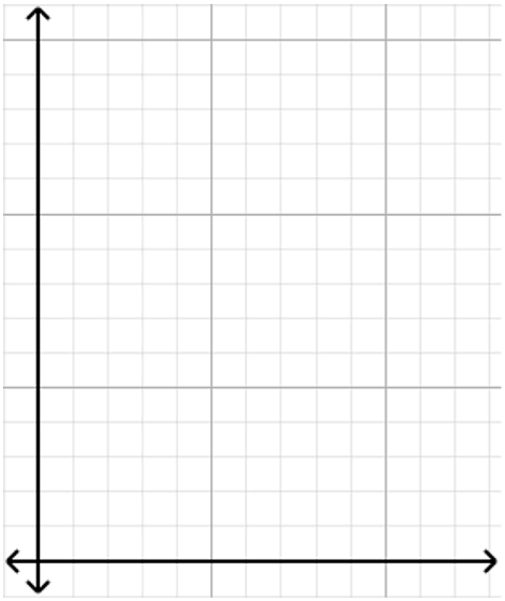
6. $\frac{2a}{3} + 13, a = 15$

Go

11.

x	y
2	13
3	12.5
6	11
7	10.5



12.

x	y
1	6
1.5	7.5
3	12
4.25	15.75