

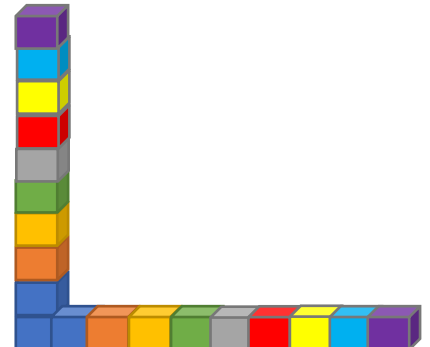
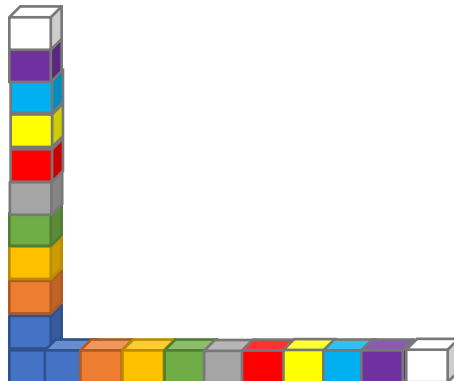
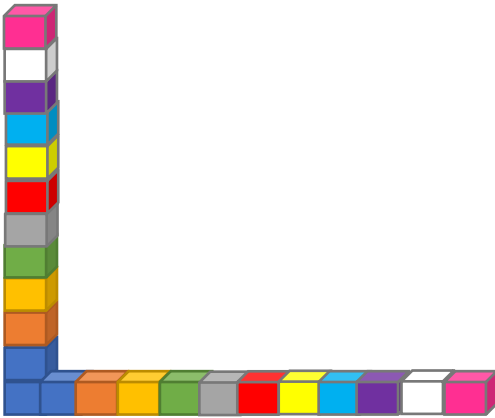
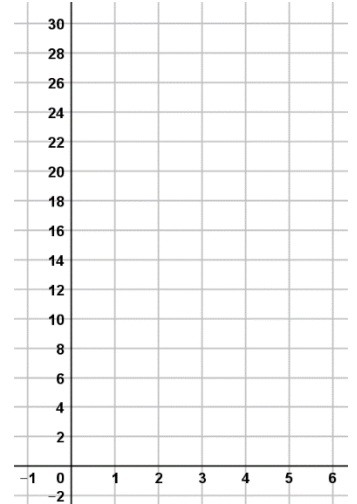
"L" Problem

Name(s) _____ Period _____

How many squares will be in the fourth figure?

How many in the 10th?

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.



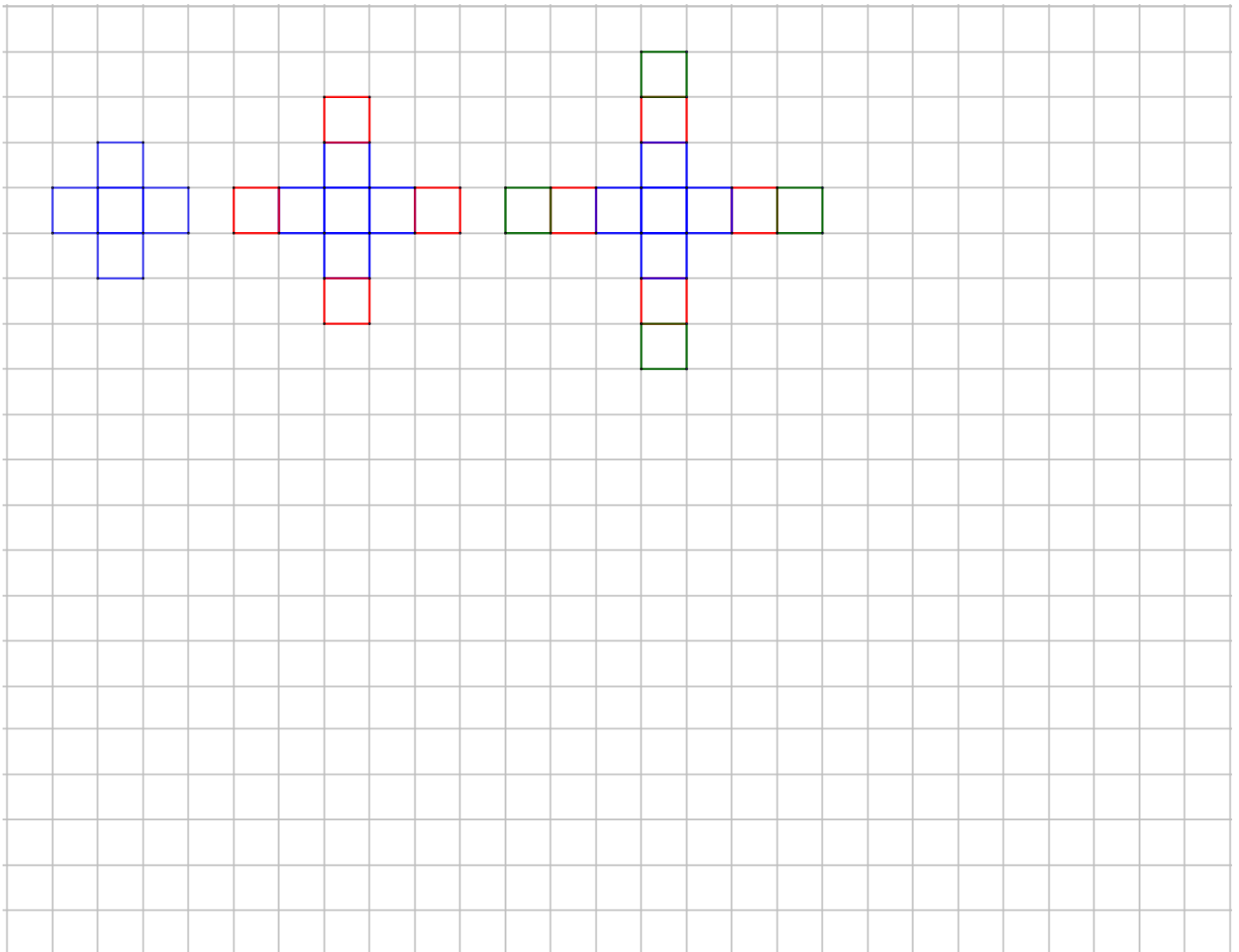
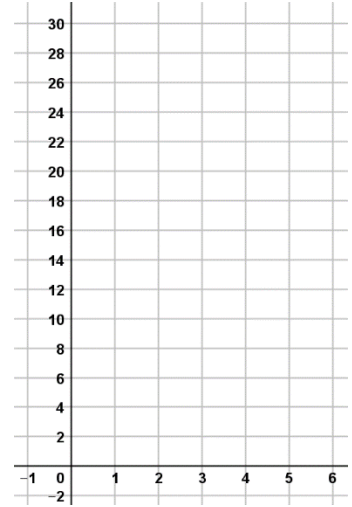
Plus Problem

Name(s) _____ Period _____

How many squares will be in the fourth figure?

How many in the 10th?

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.



Growing Problem

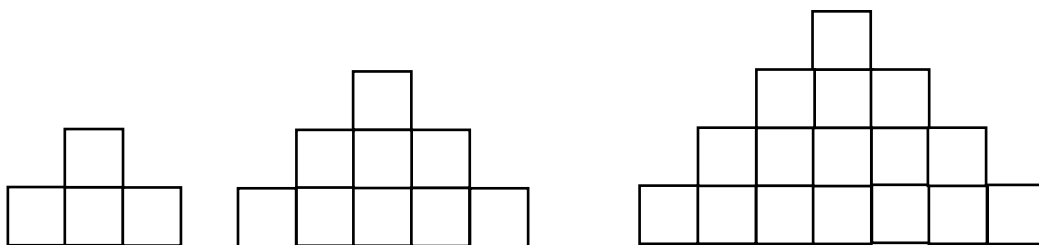
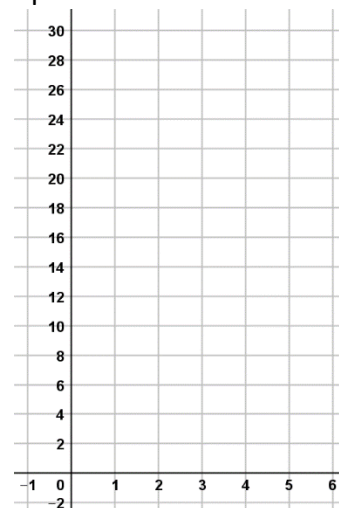
Name(s) _____ Period _____

How do you see the figure growing?

How many squares will be in the fourth figure?

How many in the 10th?

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.



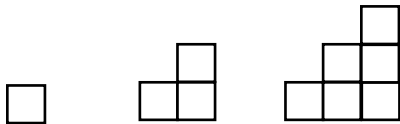
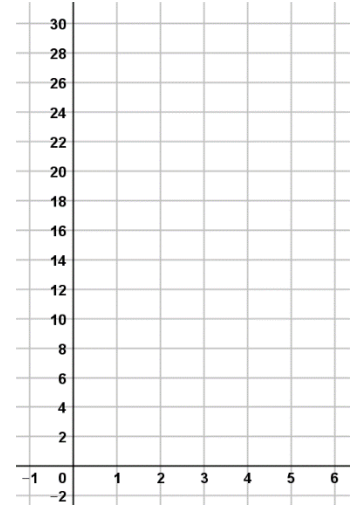
Stair Problem

Name(s) _____ Period _____

How many squares will be in the fourth figure?

How many in the 10th?

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.



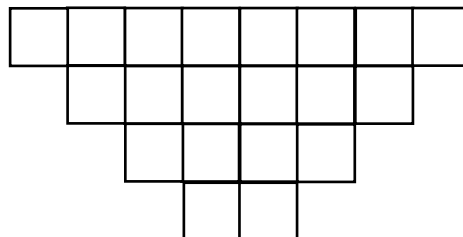
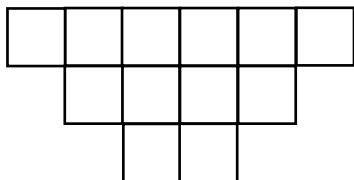
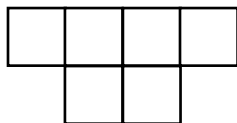
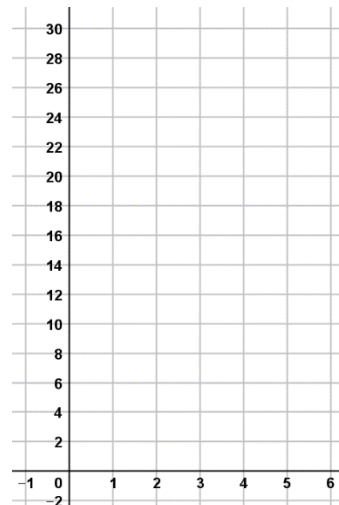
Gathering Storm

Name(s) _____ Period _____

How many squares will be in the fourth figure?

How many in the 10th?

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.



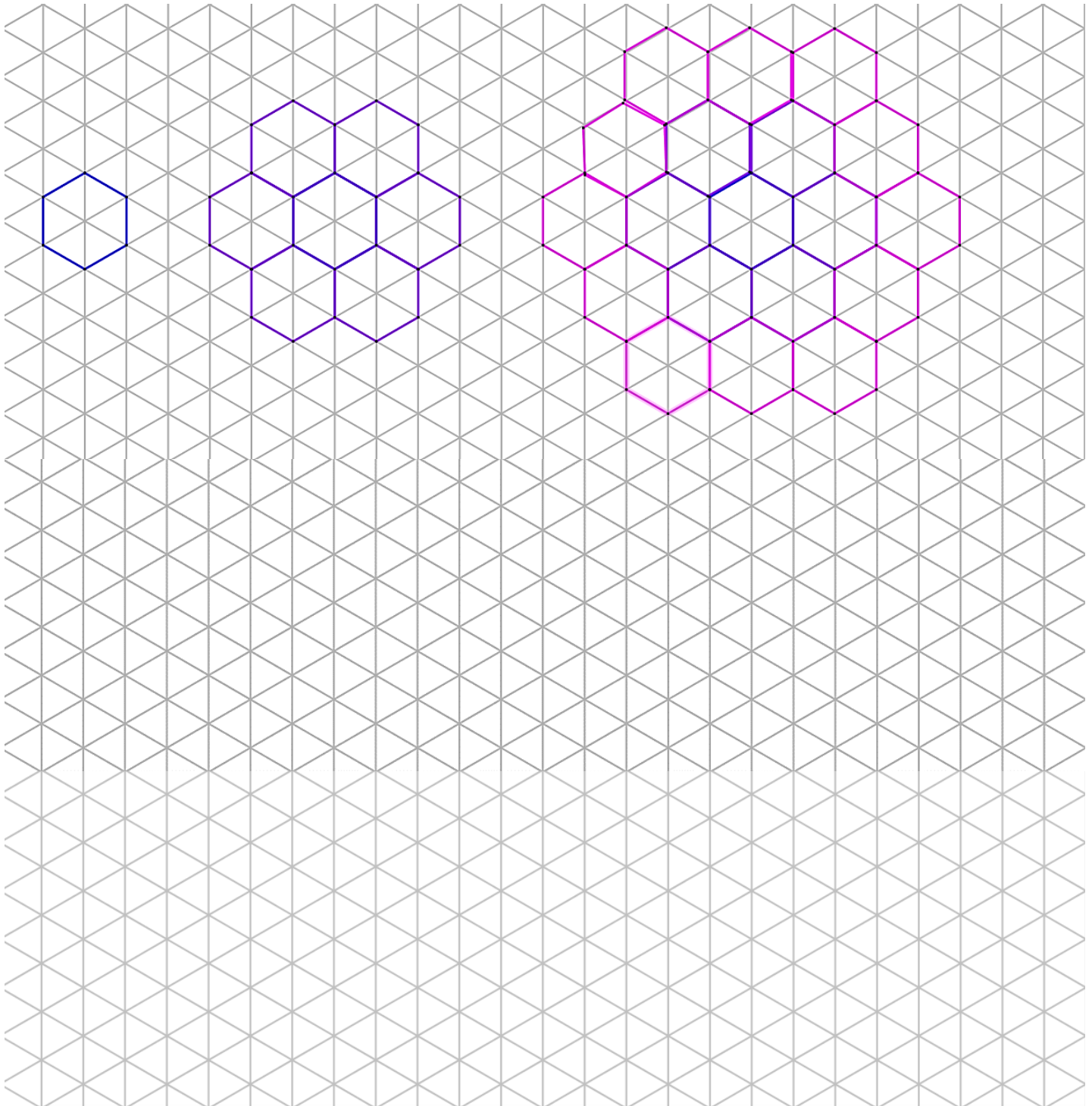
Hexagon Problem

Name(s) _____ Period _____

How many hexagons will be in the fourth figure?

How many in the 10th?

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.



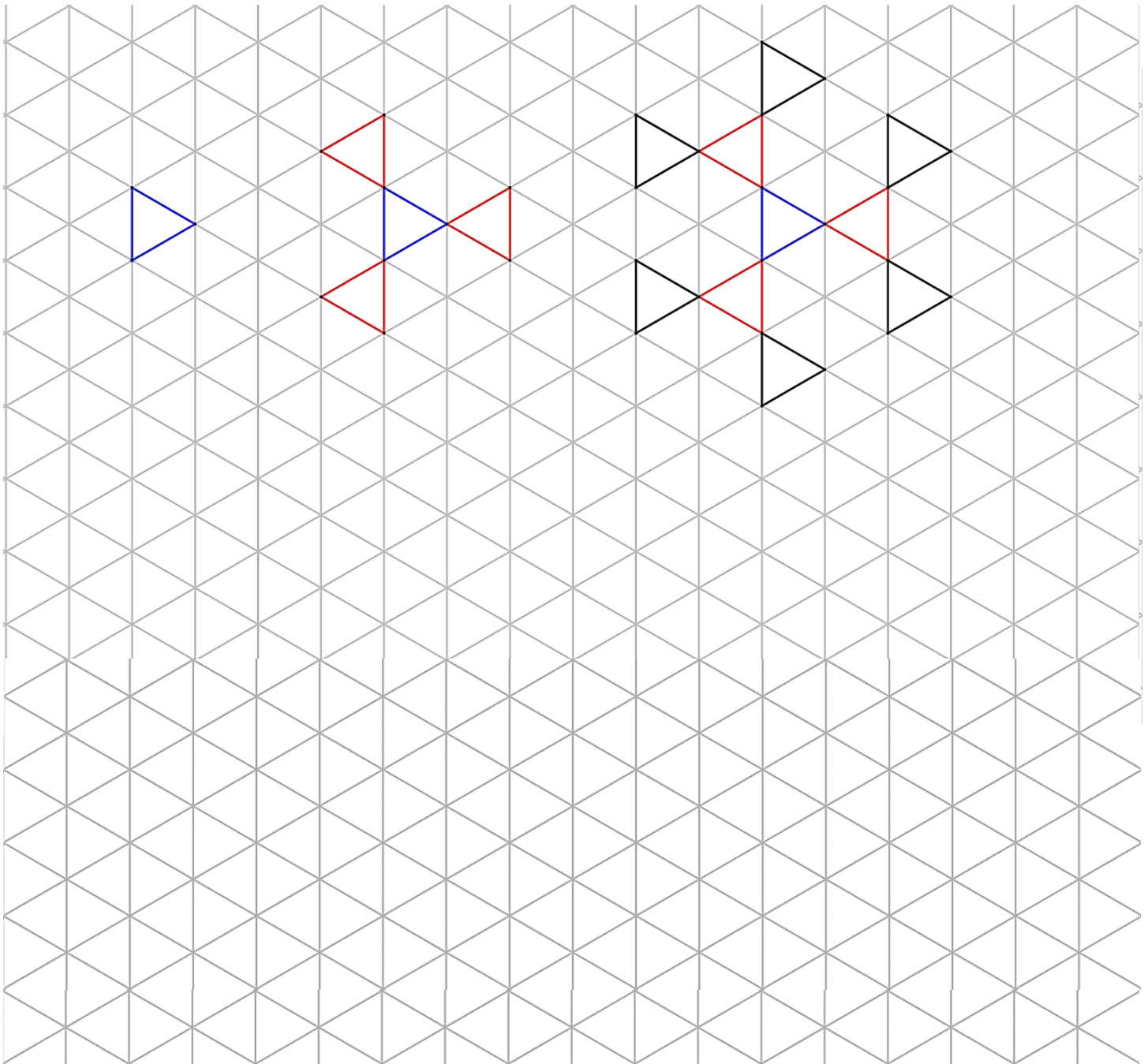
Triangle Problem

Name(s) _____ Period _____

How many triangles will be in the fourth figure?

How many in the 10th?

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.



"L" Problem

Name(s) _____ **Key!** _____ Period _____

How many squares will be in the fourth figure?

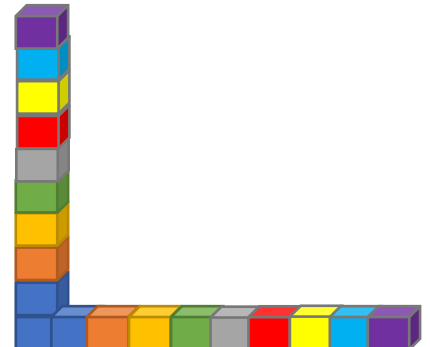
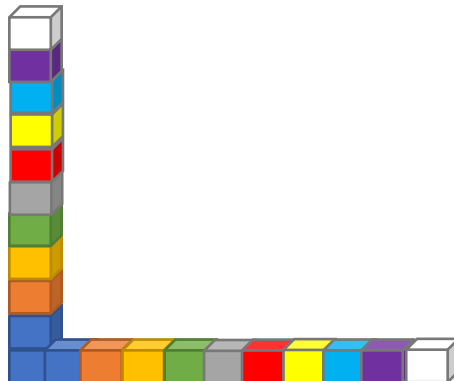
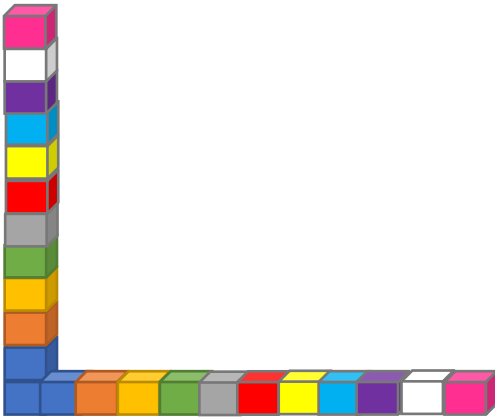
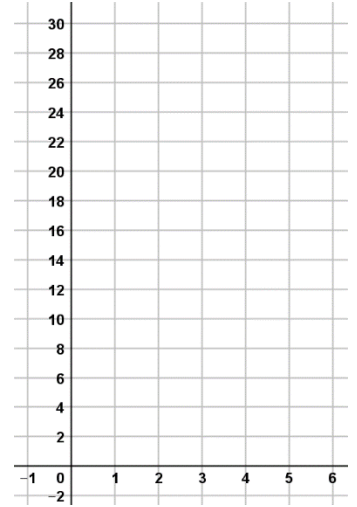
17

How many in the 10th?

5

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.

$$a_n = -2n + 25$$



Plus Problem

Name(s) _____ **Key!** _____ Period _____

How many squares will be in the fourth figure?

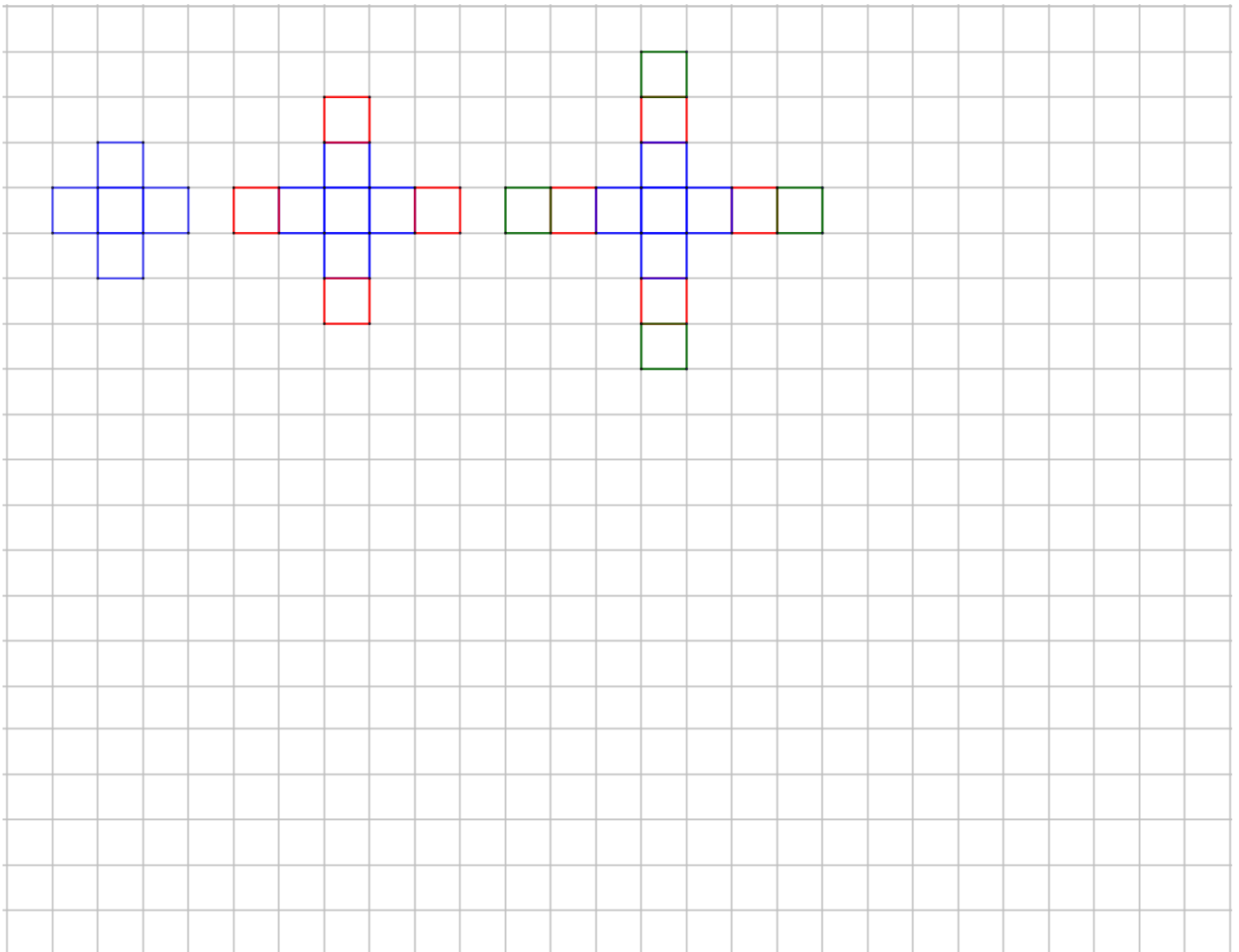
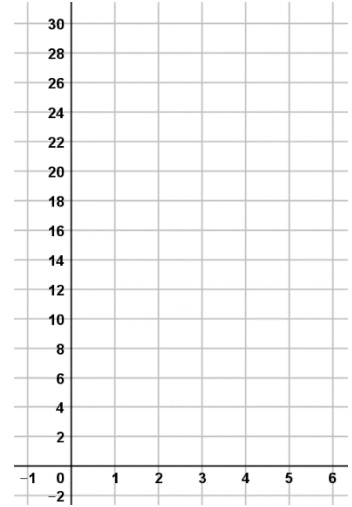
16

How many in the 10th?

41

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.

$$a_n = 4n + 1$$



Growing Problem

Name(s) _____ **Key!** _____ Period _____

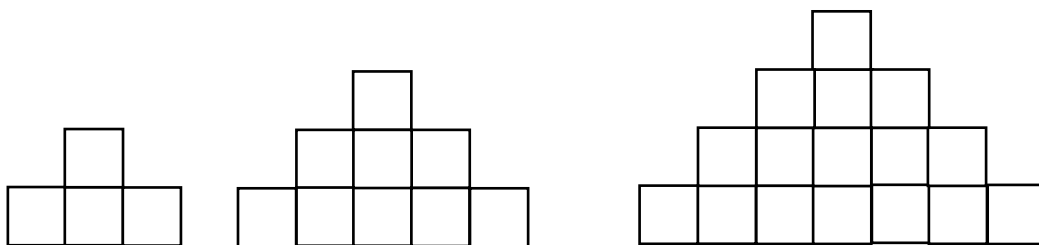
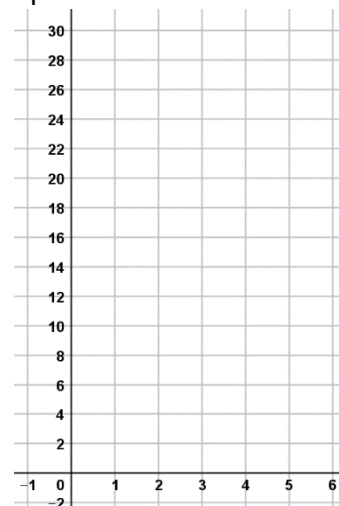
How do you see the figure growing?

How many squares will be in the fourth figure? **9**

How many in the 10th? **81**

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.

$$a_n = (n - 1)^2$$



Stair Problem

Name(s) _____ **Key!** _____ Period _____

How many squares will be in the fourth figure?

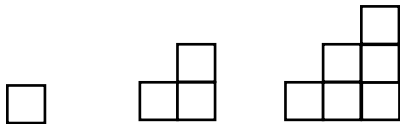
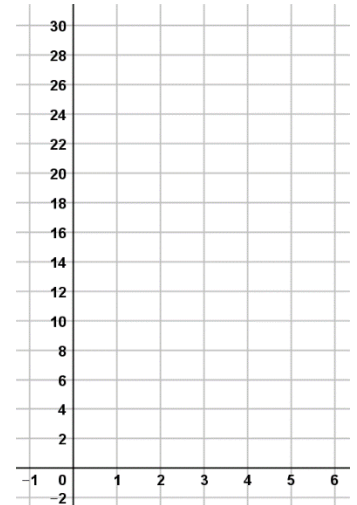
10

How many in the 10th?

55

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.

$$a_n = \frac{1}{2}n(n + 1)$$



Gathering Storm

Name(s) _____ **Key!** _____ Period _____

How many squares will be in the fourth figure?

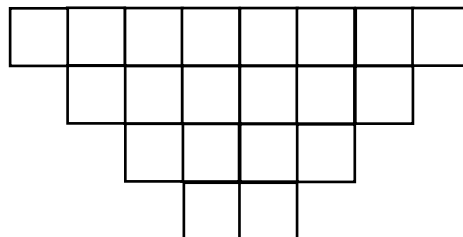
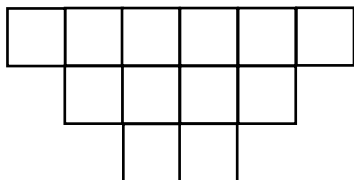
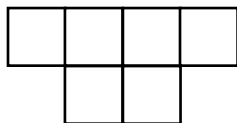
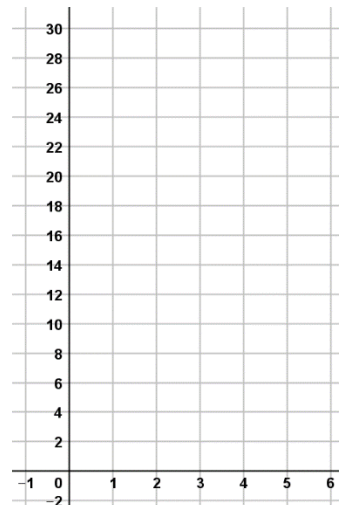
30

How many in the 10th?

132

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.

$$a_n = n^2 + 3n + 2$$



Hexagon Problem

Name(s) _____ **Key!** _____ Period _____

How many hexagons will be in the fourth figure?

37

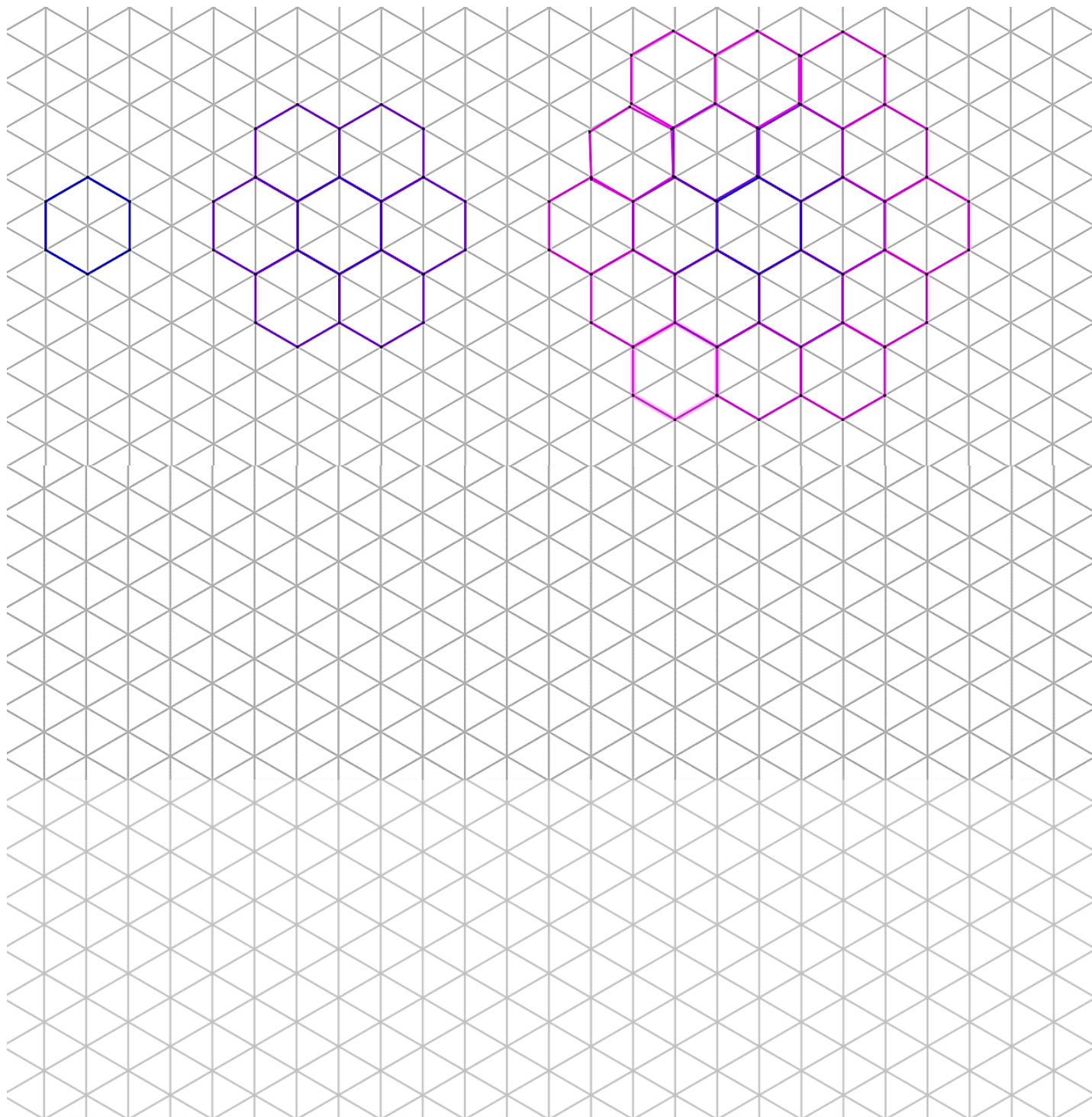
How many in the 10th?

269

s

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.

$$a_n = 3n^2 - 3n + 1$$



Triangle Problem

Name(s) _____ **Key!** _____ Period _____

How many triangles will be in the fourth figure?

19

How many in the 10th?

136

How do you know? Justify your answer in a table, graphically, and/or by creating a sequence.

$$a_n = 1.5n^2 - 1.5n + 1$$

