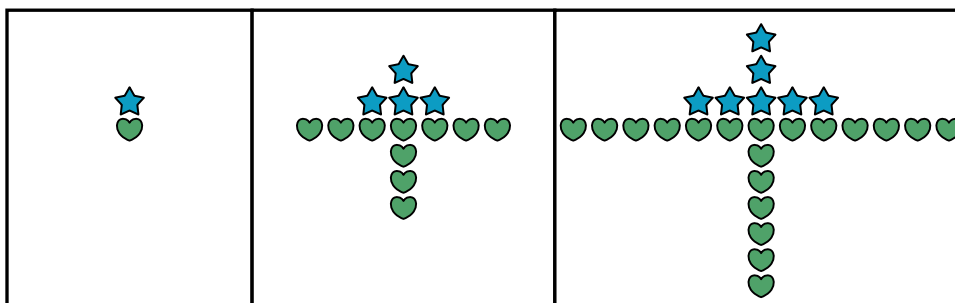




Name _____

Date _____

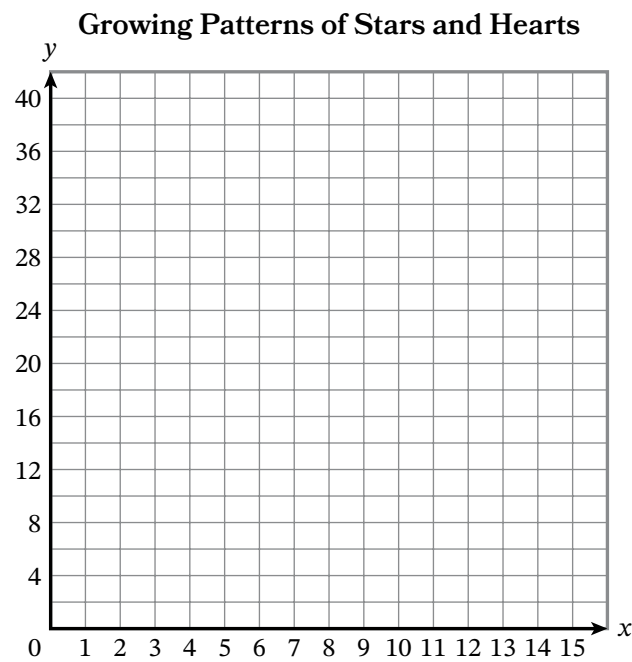
1. The first three iterations in a pattern of stars and hearts is shown.



- a. The table represents the number of stars and hearts in each iteration. Complete the table where x represents the number of stars and y represents the number of hearts in each step.

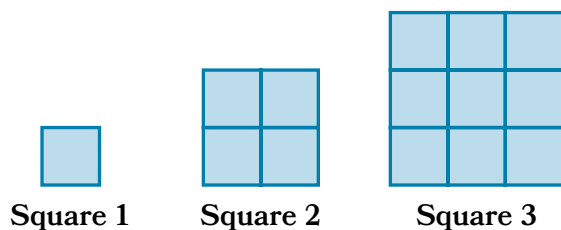
Number of Stars	Number of Hearts	Ordered Pair
1	1	(1, 1)

- b. Use the coordinate plane to plot the ordered pairs from part (a). Label the axes.



- c. What is the relationship between the number of stars and the number of hearts in corresponding figures?
- d. If the number of stars is 34, what is the number of hearts?

2. Square 1 is made of 1 unit square. Square 2 is made of 4 unit squares. Square 3 is made of 9 unit squares.



- a. Draw square 4 and square 5.
- b. Complete the table that shows the relationship between the area and perimeter of each square. The first row is completed for you.

Area (square units)	Perimeter (units)	Ordered Pair
1	4	(1, 4)

- c. Plot the ordered pairs from part (b) in the coordinate plane.

