Name_____   Period _____   Date _____
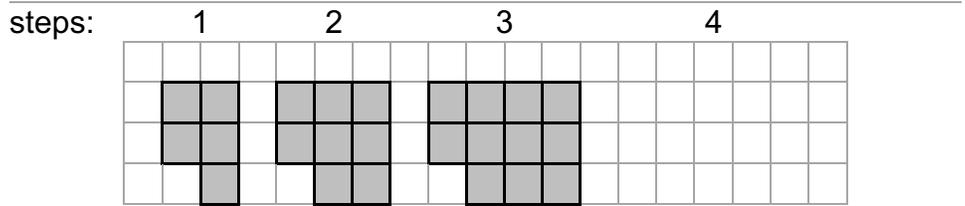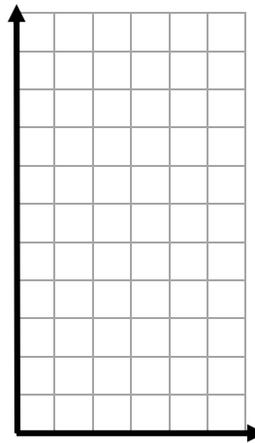
8-4 QUIZ B

1. Below is a square pattern.

steps: 1   2   3   4

a. Draw the 4th step for the pattern.

b. Fill in the table for steps 1 – 4 from above, and use the pattern to also complete steps 0 and 5. Then complete a graph (include labels).

step # (x)	# of squares (y)
0	
1	
2	
3	
4	
5	

c. Write an equation to represent the pattern.

d. Find the step number when there are 89 squares.

e. What value represents the rate of change for this pattern?
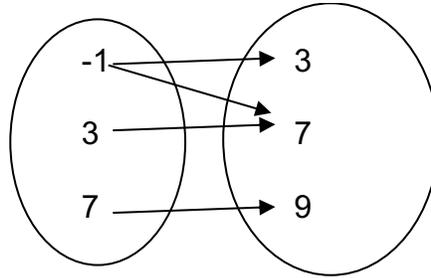
f. Interpret the rate of change…

In the picture:

In the table:

In the graph:

8-4 QUIZ B
Continued

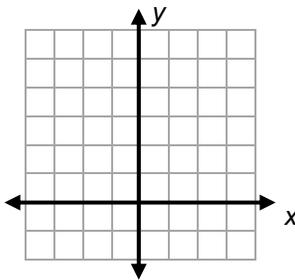2. Of the three representations below, circle all that could represent a function.

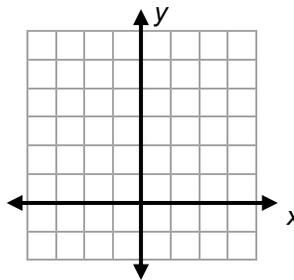| x	y
4	12
9	9
1	12
5	15
6	20

-1 → 3
3 → 7
7 → 9

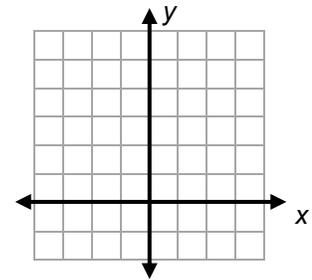(1, 1), (2, 2), (3, 3), (4, 4)

3. Draw the three graphs as described.

a. A decreasing linear function

b. An increasing linear function

c. A nonlinear non-function

4. Alexandria started a savings plan with $10 in the bank and is saving $30 each week. Isabella started a savings plan at the same time and kept track on this graph.

a. Graph Alexandria's savings on this graph.

b. Who is saving at a greater rate? Explain.