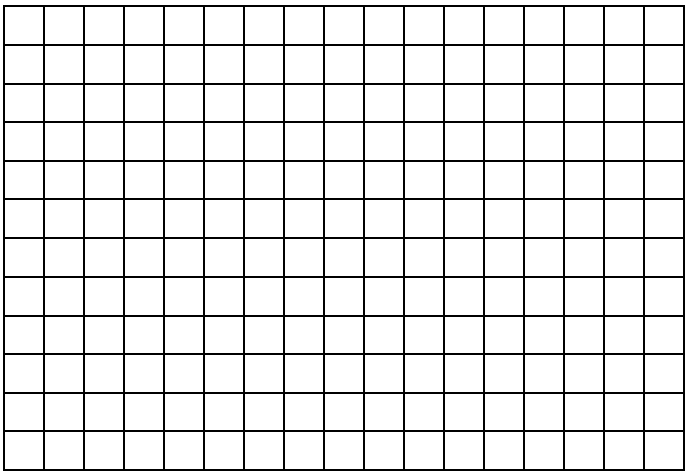
Practice Problems #11

4-25. <u>Identify growth and starting point in each representation</u>.

a. Draw Figure 0 and Figure 4 for the pattern at right.



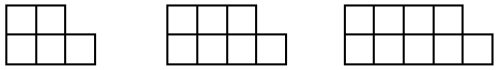


Figure 1 Figure 2 Figure 3

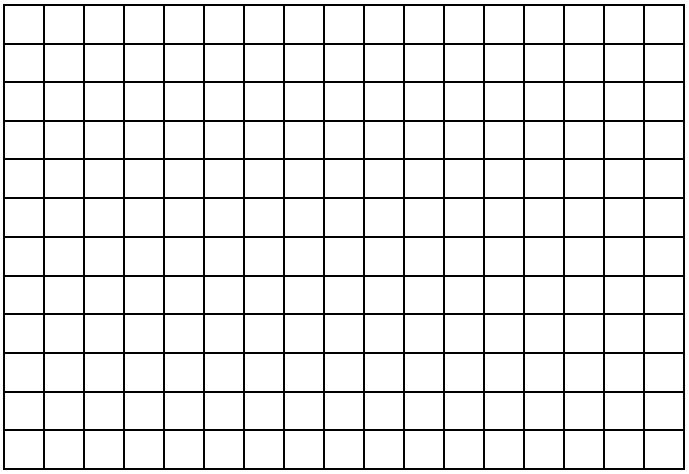
b. Represent the number of tiles in each figure with a table.

x					
y					

c. Represent the number of tiles in each figure with an algebraic rule.

y=

d. Create a **complete** graph for the rule.



4-27. For each of the equations below, solve for x. Show all work and **check your solution**.

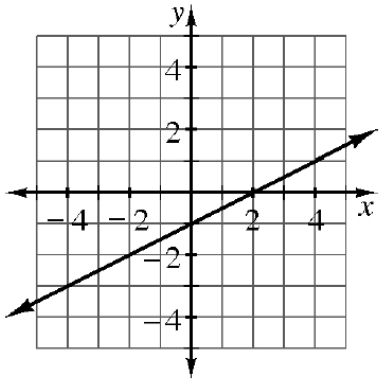
a. $-2 + 2x = -x + 2 + x$

b. $2 - 3x = x + 2$

4-28. The table is based on the graph right.

a. Use the graph to complete the table.

IN (x)	–3	–2	–1	0	1	2	3
OUT (y)							



b. What is the algebraic rule for the pattern?

4-29. Joe drove 100 miles from San Francisco to Gilroy and used 4 gallons of gas.

a. What is the unit rate (miles per gallon)?

b. How much gas should he expect to use for a 3000-mile trip to New York City?

4-37. Examine the $x \rightarrow y$ table at right.

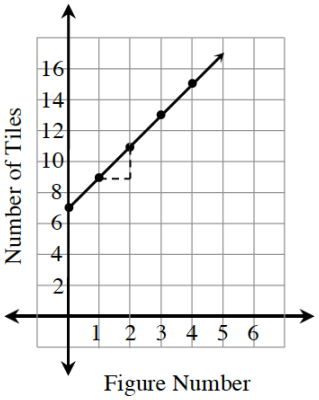
a. Invent a tile pattern that fits this data. Draw fig 0 through fig 2.

Figure Number	Number of Tiles
0	5
1	9
2	13
3	17

b. How is the pattern growing? Show where the pattern of growth appears in the $x \rightarrow y$ table and the tile pattern.

c. Write a rule for this pattern.

4-38. Look at the graph at right.



a. How many tiles are in Figure 0?

b. Figure 1?

c. What is the pattern of growth?

d. What is the rule for the pattern?

4-39. For each equation below, solve for x. **Check your solution**, if possible, and show all work.

a. $3x - 6 + 1 = -2x - 5 + 5x$

b. $-2x - 5 = 2 - 4x - (x - 1)$

4-40. I am thinking of a number. When I double my number and then subtract the result from five, I get negative one. What is my number? Write and solve an equation

4-41. On your paper, copy the table below and use your pattern skills to complete it.

IN (x)	2	10				-3			x
OUT (y)	4	28	13	-17	10		2.5	148	$3x-2$

a. Explain in words what is done to the input value, x, to produce the output value, y.

b. Explain the process you used to find the missing input values.