Name:

Date:

Lesson 4.1.1 (Part 1) Homework

* **4-2.** For each tile pattern in problem 4-1, draw Figures 0, 4, and 5.

a. b.



c. d.



e.

**4-3.** Draw Figure 0 and Figure 4 for the pattern at right.



* 1. Represent the number of tiles in each figure in an *x* → *y* table. Let *x* be the figure number and *y* be the total number of tiles.



* 1. Use the table to graph the pattern.
	2. Without drawing Figure 5, predict where its point would lie on the graph. Justify your prediction.

**4-4.** Evaluate the expressions below for the given values.

* 1. 3(2*x* + 1) for *x* = −8
	2. $\frac{x-6}{4}-1$ for *x* = −14
	3. −2*m*2 + 10 for *m* = −6
	4. *k* · *k* ÷ *k* · *k* ÷ *k* for *k* = 9
*

**4-5.** Copy and simplify the following expressions by combining like terms.

* 1. *x* + 3*x* − 3 + 2*x*2 + 8 − 5*x*
	2. 2*x* + 4*y*2 − 6*y*2 − 9 + 1 − *x* + 3*x*
	3. 2*x*2 + 30*y* − 3*y*2 + 4*xy* − 14 – *x*
	4. 20 + 3*xy* − 3*xy* + *y*2 + 10 − *y*2

**4-6.** Use the Distributive Property to rewrite each expression.

* 1. 3(2*x* - 7)
	2. –2(*x* − 7) + 5*x*
	3. 5*x* + 10
	4. 8*x* + 12*y*