Name:

Date:

Lesson 2.1.1 Homework

* **2-6.**Suppose you put one of your x‑tiles and two unit tiles with another pile of three x‑tiles and five unit tiles.  What is in this new pile?  Write it as a sum.
* **2-7.**Suppose one person in your team has two x2‑tiles, three x‑tiles, and one unit tile on his desk and another person has one x2‑tile, five x‑tiles, and eight unit tiles on her desk.  You decide to put all of the tiles together on one desk.  What is the name for this new group of tiles?
* **2-8.** Find the area and perimeter of each shape.  Assume that all corners are right angles.  Show all work.



**2-9.** One meaning of the word **evaluate** is to find the value of an expression. To evaluate, replace a variable with a number and calculate the result. For example, when you are asked to evaluate the expression 4x − 2 when x= −7, you would put −7 in place of the variable and calculate: 4 · (−7) − 2 = −30.

* Evaluate the expressions below for the given values of x and y.
1. $\frac{6}{x}$ + 9  if  x = 3
2. 8x − 3 + y  if  x = 2  and  y = 1
3. 2xy  if  x = 5 and  y = −3
4. 2x2 − y  if  x = 3 and  y = 8

**2-10.**For the following problem, define a variable and write an equation (use the 5-D Process if needed).  Then solve the equation to solve the problem.  Write your solution as a sentence.

A cable 84 meters long is cut into two pieces so that one piece is 18 meters longer than the other.  Find the length of each piece of cable.