Name:

Date:

Lesson 6.2.4 Homework

* **6-80.**Use the graph at right.
	1. Write directions for translating the original triangle to make the new triangle.
	2. What are the coordinates of the vertices (corners) of the new shape?
	3. On the graph, reflect the original triangle over the y‑axis. What are the coordinates of the new triangle?

**6-81.**Hannah thinks the solution to the system below is (–4, –6).  Wirt thinks the solution is (20, 10).

2x − 3y = 10

6y = 4x − 20

* 1. Is Hannah correct?
	2. Is Wirt correct?
	3. What do the answers to (a) and (b) tell you about the lines in the problem?

**6-82.** Figure 2 of a tile pattern is shown at right.  If the pattern grows linearly and if Figure 6 has 18 tiles, then find a rule for the pattern.

**6-83.** Simplify the following expressions for x, if possible.  Check your solutions.

* 1. −(2 − 3x) + x = 9 – x
	2. 
	3. 5 − 2(x + 6) = 14
	4. $\frac{1}{2}$x − 4 = −3 −$\frac{1}{3}$x

**6-84.**Kevin found the box plot below in the school newspaper.

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	1. Based on the plot, what percent of students watch more than 10 hours of television each week?
	2. Based on the plot, what percent of students watch less than 5 hours of television each week?
	3. Can Kevin use the box plot to find the mean (average) number of hours of television students watch each week?  If so, what is it?  Explain your reasoning.

**6-85.**Solve each equation.  Show all work.

* 1. 0.85x = 200
	2. $\frac{7}{6}$x =140