Name:

Date:

Lesson 6.2.5 Homework

**6-92.** Sketch the two similar triangles below on your own paper. Find the scale factor and the missing side lengths.



**6-93.** Alex and Maria were trying to find the side labeled x in problem 6-92. Their work is shown below.



1. Look at each student's work. Why do both multiplying by 3 and dividing by make the triangles larger?
2. Use Alex and Maria’s strategy to write two expressions to find the value of *y* in problem 6-92.

**6-94.** Consider these two equations: a. Graph both equations on the same set of axes



*y* = 3*x* – 2 *y* = 4 + 3*x*

b. Solve this system using the Equal Values Method.

1. Explain how the answer to part (b) agrees with the

graph you made in part (a).

**6-95.** Hollyhocks are tall, slender, flowering plants that grow in many areas of the U.S. Here are the heights (in inches) of hollyhocks that are growing in a park: 10, 39, 43, 45, 46, 47, 48, 48, 49, 50, and 52.

1. Find the median.
2. Find the quartiles.
3. Make a box plot of the data.



**6-96.** Use the graph at right to add points to the table below



1. Write the rule in words.
2. Explain how to use the table to predict the value of *y* when *x* is −8.

**6-97.** Use these following directions to create a mystery letter. On a piece of graph paper, draw a four‑quadrant graph. Scale each axis from 6 to –6. Plot these points and connect them in order to create a rectangle: (2, 1), (2, 4), (3, 4), (3, 1). Be sure to connect the last point to the first point. Then follow the directions in parts (a) through (c) below.

1. Rotate the rectangle 90° clockwise () about the point (2,1) and draw the rotated rectangle.
2. Reflect the new rectangle over the line *y* = 2 and draw the reflected rectangle.
3. Name the letter of the alphabet that your graph resembles.