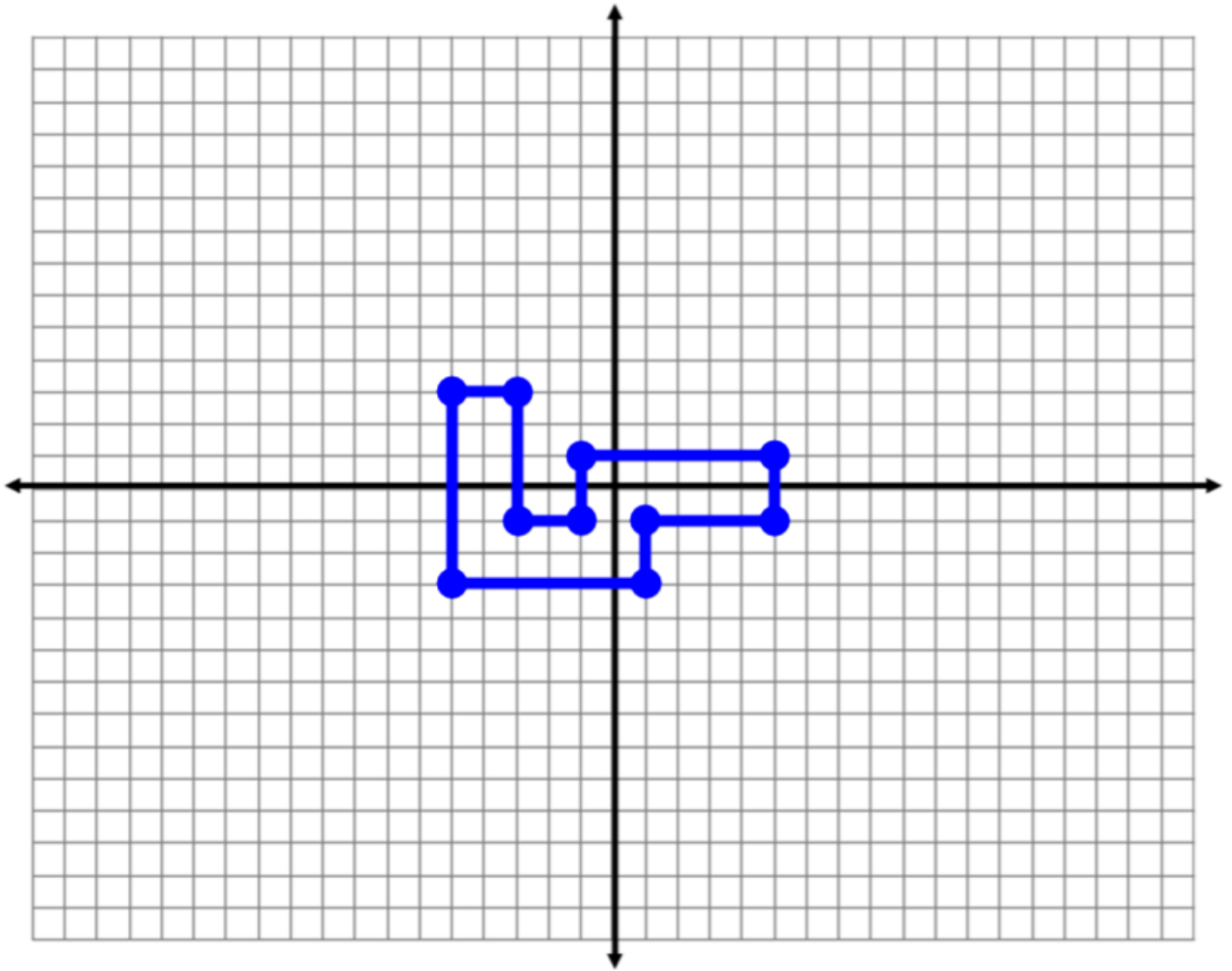


Show all work neatly, and circle your answers.

- CL 3-114. Examine the shape below.
- Using the technique from problem 3-2, enlarge this shape from the origin by a factor of 3.
  - Now redraw the enlarged shape from part (a) using a zoom factor of  $\frac{1}{2}$ .



- CL 3-115. Jermaine has a triangle with sides 8, 14, and 20. Sadie and Aisha both think that they have triangles that are similar to Jermaine’s triangle. The sides of Sadie’s triangle are 2, 3.5, and 5. The sides of Aisha’s triangle are 4, 10, and 16. Decide who, if anyone, has a triangle similar to Jermaine’s triangle. Be sure to explain how you know.

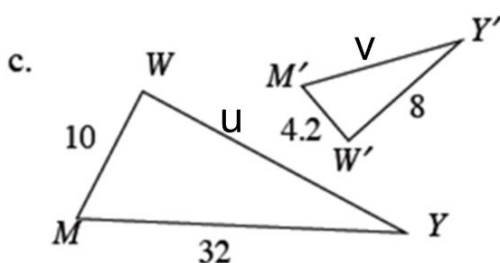
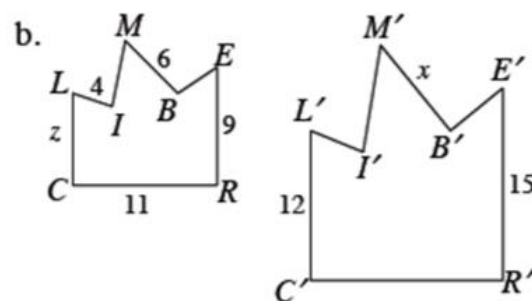
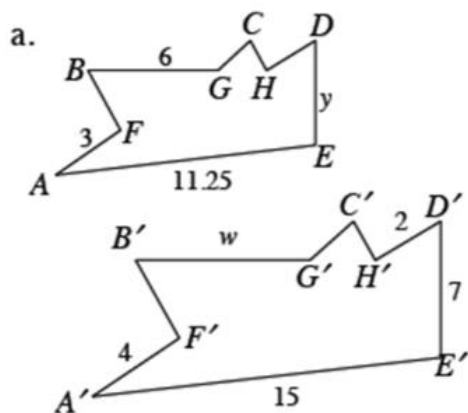
CL 3-116. For the points  $R(-2,7)$  and  $P(2,1)$  determine each of the following:

- The slope of the line through the points.
- The distance between the points.
- An equation of the line  $\overline{RP}$ .
- An equation of the line perpendicular to line  $\overline{RP}$  and passing through point  $P$ .

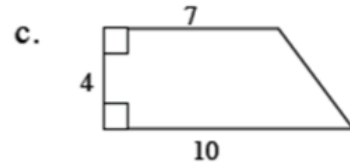
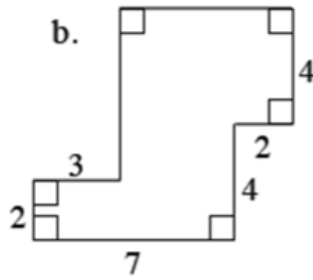
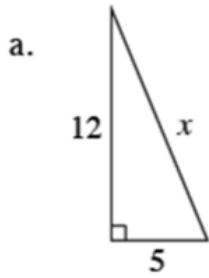
CL 3-117. For each given set of numbers, determine if a triangle with those side lengths can be made or not. If a triangle can be made, determine if the triangle is a right triangle. Justify all answers.

- 8, 15, 17
- 8, 12, 4

CL 3-118. Each pair of figures below is similar. Find the lengths of the unknown sides that are marked with a variable.



CL 3-119. Find the perimeter and area of each figure.



CL 3-120. Solve each equation.

a.  $x(3x-2) = (3x+1)(x-2)$

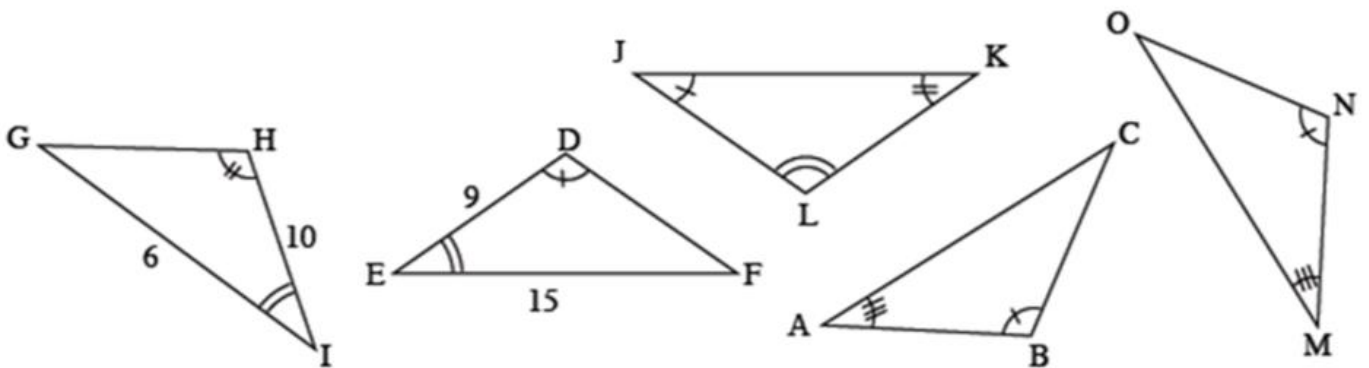
b.  $(x+1)(x+2) = (x+3)(x-1)$

c.  $\frac{x+1}{3} = \frac{x}{6}$

d.  $\frac{3}{x} = \frac{2}{5}$

CL 3-122. Among the triangles below are pairs of similar triangles. Find the pairs of similar triangles and state the triangle similarity condition that you used to determine that the triangles are similar.

**\*\*Make a proper flowchart for each pair of similar triangles!**



CL 3-123. To help boost their healthy eating habits, Alyse and Haley are getting creative making juices. They are going to put fruits and vegetables in an ice chest, and then close their eyes to randomly pick fruits and vegetables to blend into juice. They hope to create something new and delicious!



- a. The ice chest can hold 18 pieces of fruit or vegetables. For their first drink, Alyse and Haley want the probability of picking a carrot to be about 40%. How many carrots should they put in the ice chest?
  
- b. For their second drink, there are 2 red apples, 5 apricots, 1 mango, 2 red tomatoes, 1 red grapefruit, 4 bananas, 2 nectarines, and 1 peach in the ice chest. What is the probability (expressed as a percent) that the first piece they pick is red?
  
- c. Haley *loves* pomegranates. So she adds 7 pomegranates to the bin in in part (b). What is the probability (expressed as a percent) that the first fruit picked will be a pomegranate?

CL 3-124. The following questions are part of the grade for this packet – do not skip them! Take a few minutes to reflect on the closure packet, as well as the work you have done in this chapter. Be complete and specific in your answers. If there are things that you need help with, be sure to **SEE YOUR TEACHER OR GO TO MATH HELP BEFORE THE DAY OF THE TEST!**

Which **problems** in the closure packet do you feel confident about?

Which **problems** were difficult?

Make a list of **topics** from the chapter that you feel **you need to practice more**.

Make a list of **topics** from the chapter you feel **you need help with**.