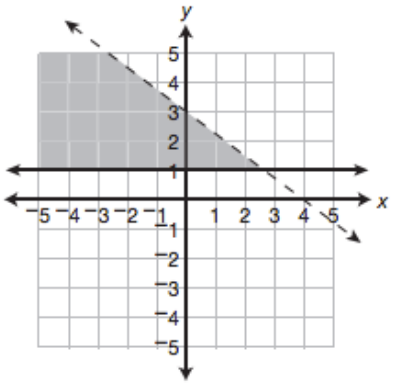
Week 23 questions Name _____

These questions are due by the end of the week. 10/10 points towards your assessment grade if you get them all right and have the math work on paper to back up your work.
You will receive zero points and fail the assignment if you are asked for your work on paper and can not produce that effort. Missing some part of the assignment will cause a loss of that percent of the overall assignment.
These weekly problems cannot be attempted a second time and the work must be turned in on time, not later in the day, not during remediation, and not the next day.
You should work on these problems throughout the week and use down time in class to work with your teams on the solution to these problems.

1.

The solution set to a system of linear inequalities is graphed below.

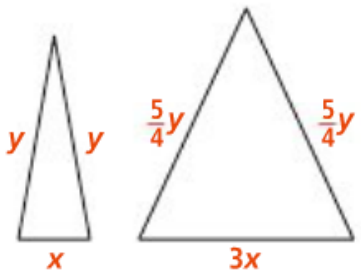



**C.** Write a system of two linear inequalities that would have the solution set shown in the graph.

2. Solve using two different methods. Explain which method you found to be more efficient.

$$3x - 9y = 3$$
$$6x - 3y = -24$$

3. The triangles on the left has a perimeter of 14. The triangle on the right has a perimeter of 21. What are $x$ and $y$?




4. A town is organizing a Fourth of July parade. There will be two sizes of floats in the parade, as shown below. A space of 10 ft will be left after each float.


a. The parade must be at least 150 feet long, but less than 200 feet long. What combinations of large and small floats are possible?

b. Large floats cost $600 to operate. Small floats cost $300 to operate. The town has a budget of $2500 to operate the floats. How does this change your answer to part (a)?

c. Considering the $2500 spending limit, what combinations of large and small floats are possible?