

Name: _____ Date: _____ Period: _____

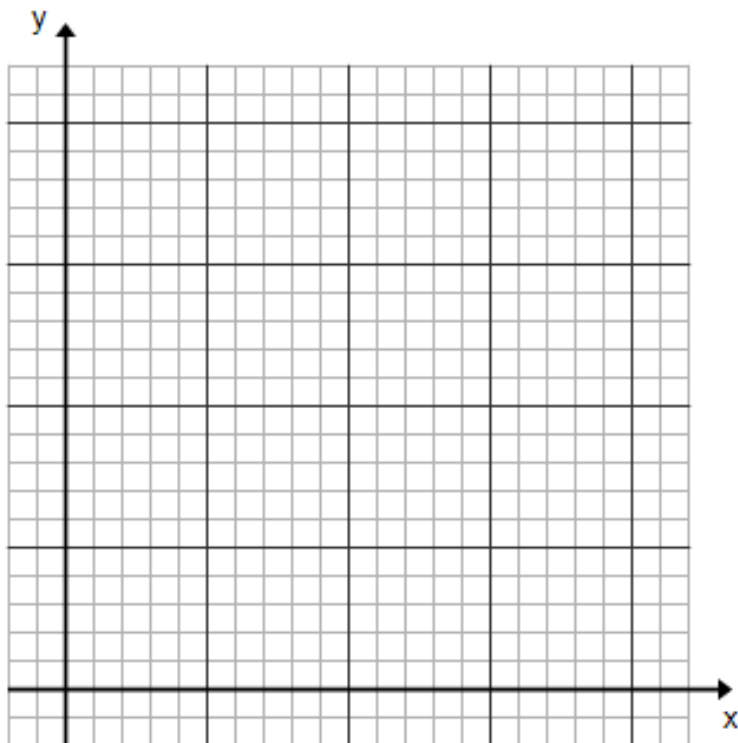
Unit 4 Day 9 – Solving System of Inequalities Classwork

Math Club members want to advertise their fundraiser each week in the school newspaper. They know that a front-page ad is more effective than an ad inside the paper. They have a \$30 advertising budget. It costs \$2 for each front-page ad and \$1 for each inside-page ad. The club wants to advertise at least 20 times.

a. What are some possibilities for the numbers of front-page ads and inside-page ads the club can place? Give at least 5 possibilities.

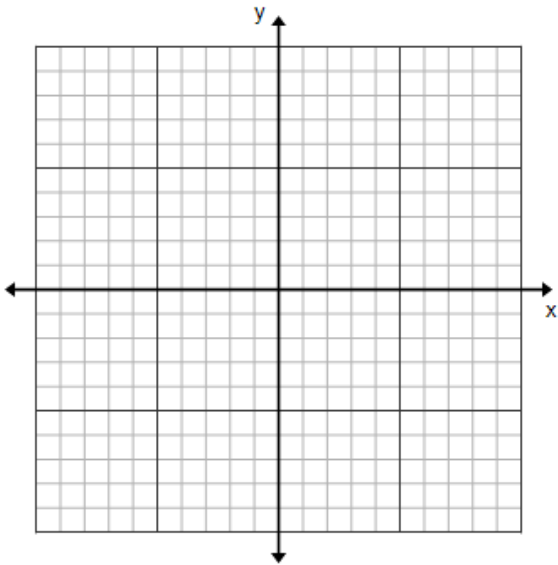
b. Write a system of linear inequalities to model this situation. Make sure to identify what your variables represent.

c. Graph the system of inequalities. Make sure to label your axis and identify which region shows all the possible solutions.



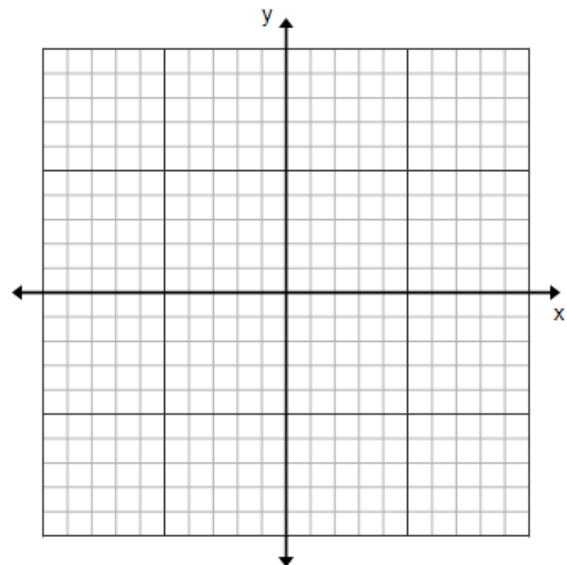
Graph each system of inequalities. Name two points that are solutions to both inequalities.

2.
$$\begin{cases} y \leq 3x - 1 \\ 3x - 2y \leq 12 \end{cases}$$



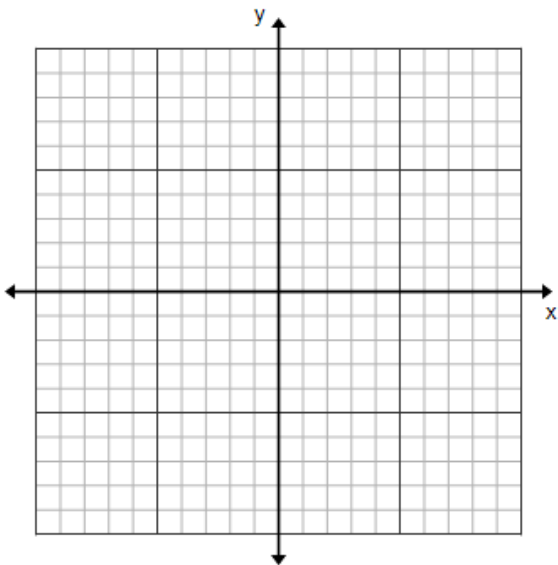
Two Possible Solutions: _____

3.
$$\begin{cases} y + 2 > -1 \\ y \leq 2x - 5 \end{cases}$$



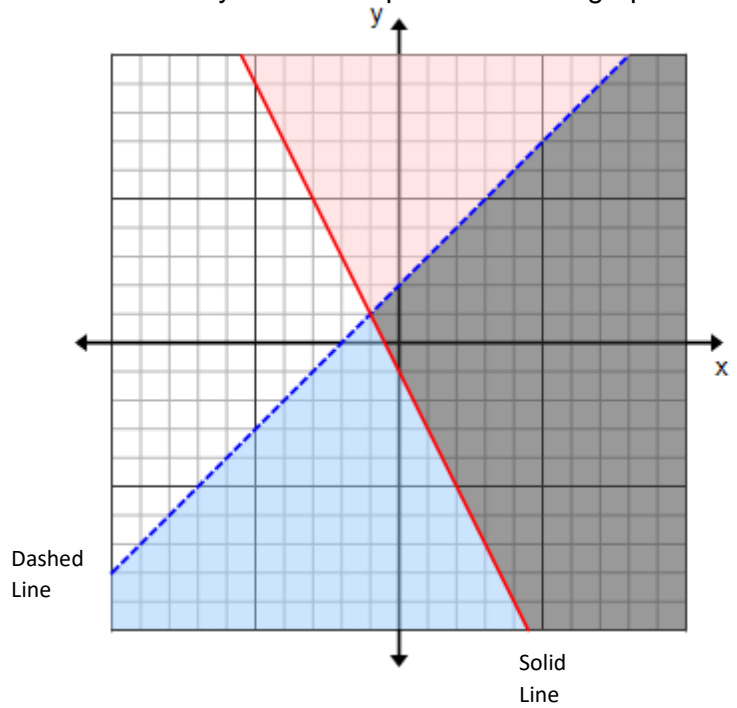
Two Possible Solutions: _____

4.
$$\begin{cases} x \leq 4 \\ y > 2 \end{cases}$$



Two Possible Solutions: _____

5. Write a system of inequalities for this graph.



Two Possible Solutions: _____