

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## SYSTEM OF LINEAR INEQUALITIES Bell Work

Solve the following inequalities and graph its solution

1. 
$$\begin{cases} 4x + y < 8 \\ -x + y \geq 2 \end{cases}$$

2. 
$$\begin{cases} y - x < 4 \\ 2x + y \geq 1 \end{cases}$$

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

4. 
$$\begin{cases} 2x + y \leq 6 \\ x + y \geq 0 \\ y \leq 4 \end{cases}$$

Solve the following word problem:

5. Alex is preparing a party and he is buying the supplies at the Market. Regular sized boxes of spoons contain enough for 20 persons, while value-pack boxes contain enough for 30 persons. He needs at least enough spoons for the 60 guests who plan to attend. Write and graph a system of linear inequalities.