Systems of Inequalities Name: _____

Watch the first 6 minutes of the video found here: https://www.youtube.com/watch?v=O07I-d5K3KA Follow along with the video by showing your work below.

Find the coordinates of the vertices of the triangle formed by the system of inequalities.



- a) What are the three vertices? (In the video the teacher ESTIMATES the last vertices....nooooooo, you are smarter than that....use your systems to equation to find exact point!!!)
- b) If a function was given such as f(x, y) = 4x 2y, what would be the maximum and minimum values for this function? (hint...plug in your three vertices into the function to determine the max and min)



Practice:

2. $x \le 3$ f(x, y) = 2x + 8y + 10 $x + y \ge 1$ f(x, y) = 2x + 8y + 10

Vertices:

Maximum: _____

Minimum: _____



3. $x \ge 0$ $y + 2 \ge 0$ $5x + 6y \le 18$

f(x,y) = 2x + 3y

Vertices:

Maximum: _____

Minimum: _____

