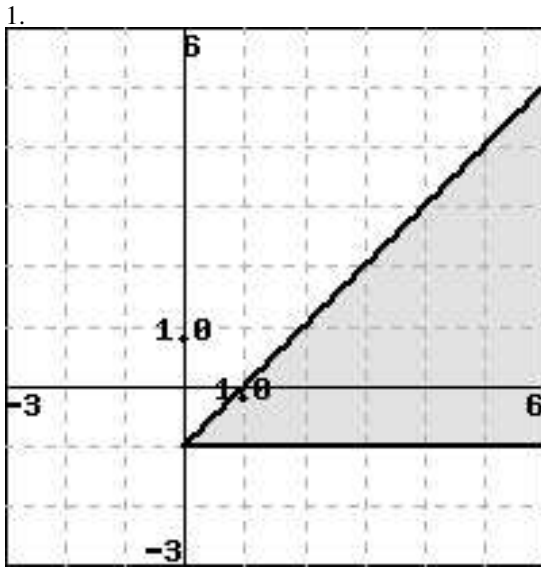
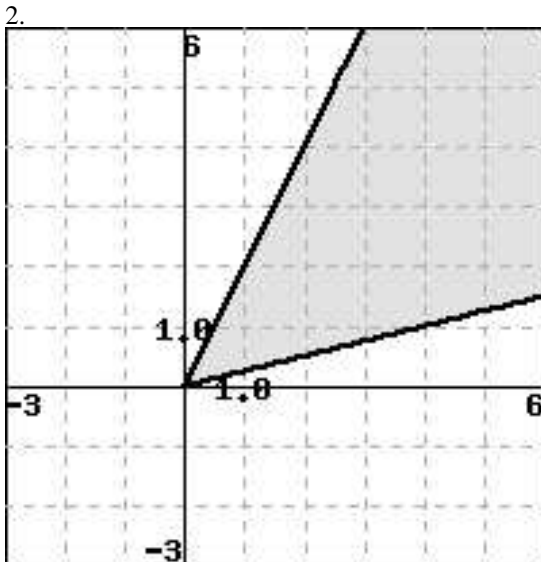


1.(1 pt) For each graph, determine its system of linear inequalities.



- A. $\begin{cases} y \leq x \\ y \leq -1 \end{cases}$
- B. $\begin{cases} y \leq -x+1 \\ y \leq -1 \end{cases}$
- C. $\begin{cases} x \leq y+1 \\ y \geq -1 \end{cases}$
- D. $\begin{cases} y \leq x-1 \\ x \geq -1 \end{cases}$
- E. $\begin{cases} y \leq x-1 \\ y \geq -1 \end{cases}$
- F. None of the above



- A. $\begin{cases} y \geq 2x \\ x \geq 4y \end{cases}$
- B. $\begin{cases} y \geq 4x \\ x \geq 2y \end{cases}$
- C. $\begin{cases} y \leq 2x \\ x \geq 0 \end{cases}$
- D. $\begin{cases} y \geq 2x \\ x \leq 4y \end{cases}$
- E. $\begin{cases} y \leq 2x \\ x \leq 4y \end{cases}$
- F. None of the above

2.(1 pt) Graph the system:

$$\begin{cases} x \geq 0 \\ y \geq 0 \\ y \leq 6 \\ 6x + 4y \leq 60 \end{cases}$$

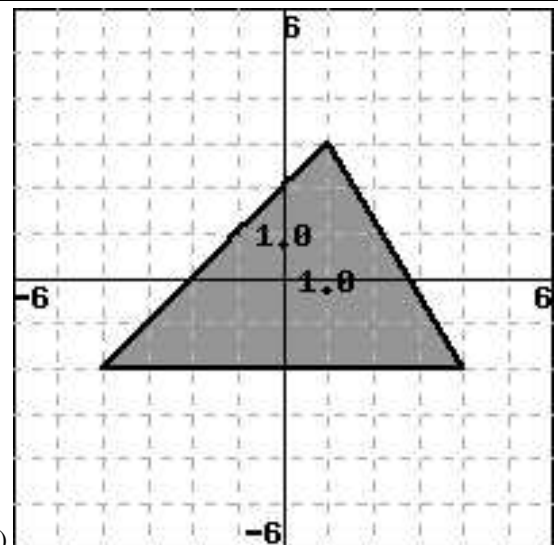
List the vertices of the region clockwise starting with (0,0):
(0,0); (____, ____); (____, ____); (____, ____).

3.(1 pt) Graph the system:

$$\begin{cases} x \leq 9 \\ y \leq 3 \\ x \geq -5 \\ 4x - 10y \leq 36 \\ 2x + 4y \geq -18 \end{cases}$$

List the vertices of the region clockwise starting with the vertex whose y-coordinate is the lowest:

(____, ____); (____, ____); (____, ____); (____, ____);
(____, ____).



4.(1 pt)

Choose 3 inequalities that form a system whose graph is the shaded region shown above.

- A. $5x + 3y \leq 14$

- B. $x \geq -2$
- C. $y \leq -2$
- D. $5x - 5y \leq -10$
- E. $y \leq 2$
- F. $5x + 3y \geq 14$
- G. $y \geq -2$
- H. $5x - 5y \geq -10$

5.(1 pt) Maximize $z = 5x + y$ subject to $x \geq -2$, $y \geq -3$, $6x - 7y \leq 15$, $6x + 8y \leq 60$

Answer: _____

6.(1 pt) Minimize $f(x, y) = 5y - 2x + 4$ subject to $x \geq -5$, $x \leq 6$, $4x + 11y \leq 46$, $2x + 11y \geq -54$.

Answer: _____