Concepts of Algebra 2 Notes **Section 3-4: Linear Programming**

***Objective:**

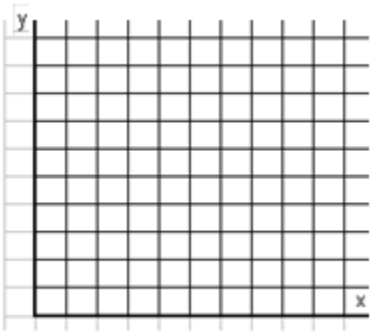
*linear programming:

*feasible region: *objective function: *constraints:	Example $C = 2x + y$ $\begin{cases} x \geq 2 \\ y \geq 3 \\ y \leq 6 \\ x + y \leq 10 \end{cases}$	*Diagram (first on p. 157)

*Vertex Principle of Linear Programming

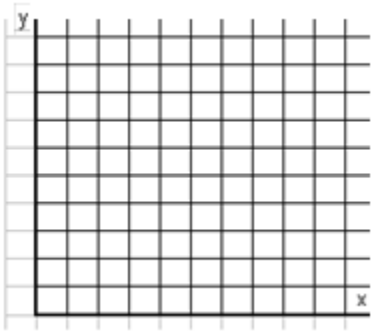
Got It? **1. a.** Use the constraints in Problem 1 with the objective function $P = x + 3y$. What values of x and y maximize P?

Constraints $\begin{cases} x + 2y \leq 5 \\ x - y \leq 2 \\ x \geq 0 \\ y \geq 0 \end{cases}$



15. Error Analysis Your friend is trying to find the maximum value of $P = -x + 3y$ subject to the following constraints.

$$\begin{cases} y \le -2x + 6 \\ y \le x + 3 \\ x \ge 0, y \ge 0 \end{cases}$$



Inclass: p. 160 #10
Homework: p. 160-161 #11, 17, 19
Interactmath: #10, 17