

OPTIMIZATION PROBLEMS PART II - EXPLORING SOLUTIONS

- DISCOVERING A SOLUTION FOR AN OPTIMIZATION PROBLEM CAN BE DONE BY TESTING POINTS IN THE FEASIBLE REGION

- MAX OR MIN VALUES ARE FOUND AT THE VERTICES (CORNERS) OF THE FEASIBLE REGION

THE RECALL THE COOKIE PROBLEM WITH MIMI'S AND CHOCOLATE CHIPS

$$x = \# \text{ CF MATH'S}$$

$$x \geq 4$$

$$y = \# \text{ CF CHOCOLATE CHIPS}$$

$$y \geq 6$$

$$4x + 2y \leq 40$$

$$y \leq -2x + 20$$

OBJECTIVE FUNCTION

$$C = x + y \quad (\text{MILK CHOCOLATE CANDY})$$

$$\#1 \quad (4, 12)$$

$$C = x + y$$

$$C = 4 + 12$$

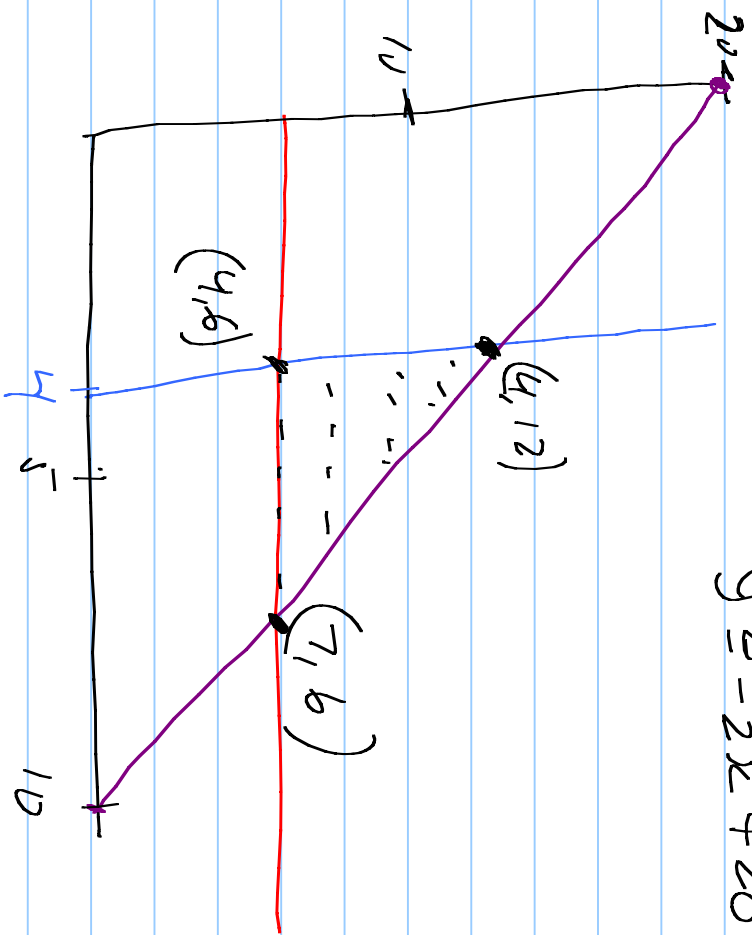
$$C = 16$$

$$\#3 \quad (4, 6)$$

$$C = 4 + 6$$

$$\#2 \quad (7, 6) \quad C = 7 + 6$$

$$C = 13$$



H/W Pg 342 # 2, 5, 6

Pg 349 # 4A, # 10