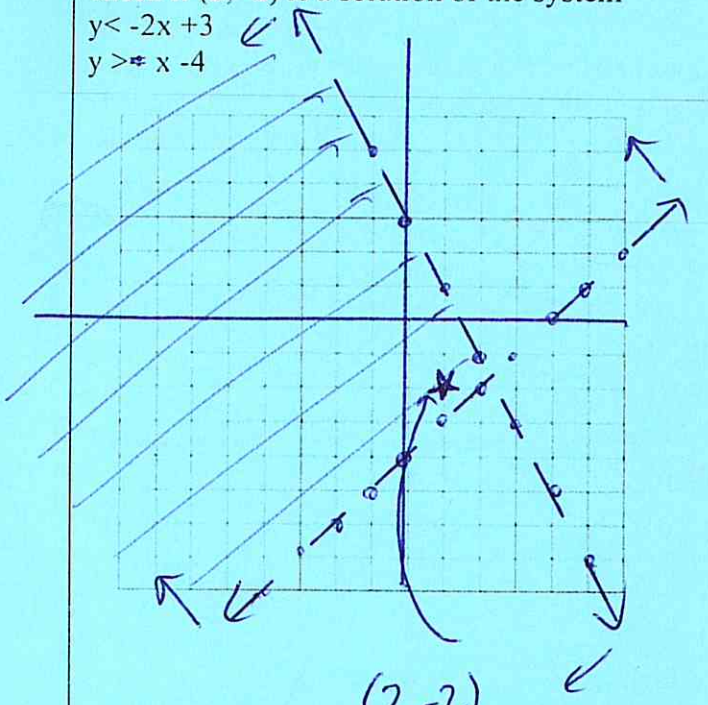
9. I can interpret solutions as viable or non- viable options for a system of inequalities. (A.CED. 3)

Ex. Solve the following system of inequalities and check if (2, -2) is a solution of the system

$y < -2x + 3$

$y \geq x - 4$



(2, -2) IS a sol'n - it's in the shaded region

11. I can use the constraints represented by inequalities or system on inequalities to find the set of (x, y) that maximizes or minimizes the objective function and find the maximum and/or minimum values(A.CED. 3)

Ex. For the previous problem find how many trays of each type of muffin should the baker make to maximize his profit. What is the maximum profit that that he can make.

(x, y)	$P = 3x + 2y$
(0,0)	$3(0) + 2(0) = 0$
(0,5)	$3(0) + 2(5) = 10$
(3,2)	$3(3) + 2(2) = 13$
(4,0)	$3(4) + 2(0) = 12$

The baker should make 3 corn muffin trays and 2 bran muffin tray to maximize his profit at #13

10. I can represent constraints by inequalities or system of inequalities and graph it to find the feasible region(A.CED. 3)

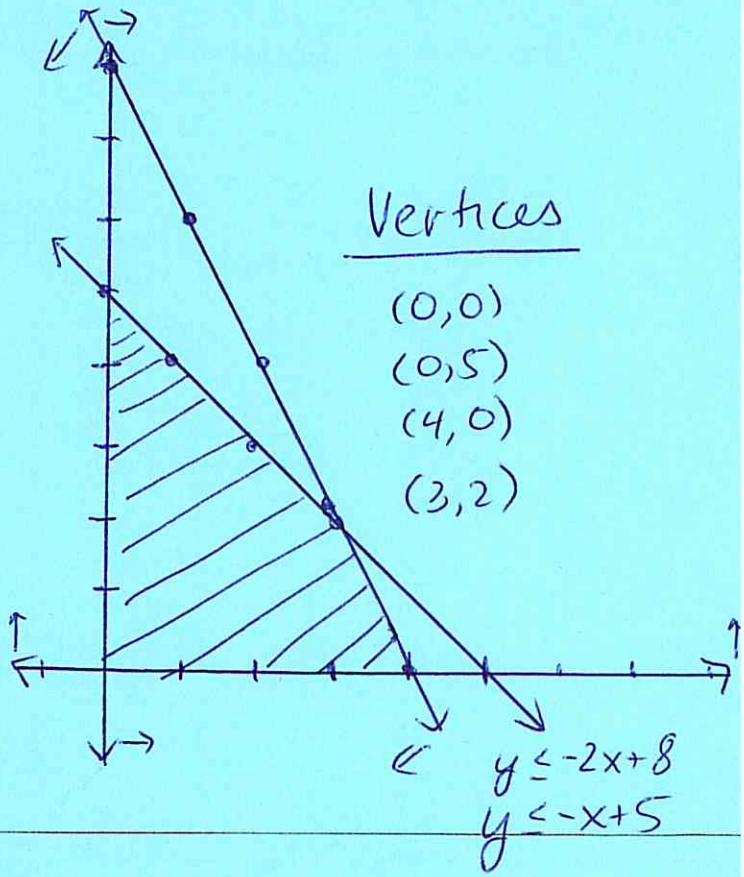
Ex. Find the objective function for the following problem and solve it.

Baking a tray of corn muffins takes 4c milk and 3c wheat flour. A tray of bran muffins takes 2c milk and 3c wheat flour. A baker has 16c milk and 15c wheat flour. He makes $3 profit per tray of corn muffins and $2 profit per tray of bran muffins.

x = # of corn muffin trays

y = # of bran muffin trays

	x = # of corn trays	y = # of bran trays	$x \geq 0, y \geq 0$
milk	$4x$	$2y$	$4x + 2y \leq 16$
flour	$3x$	$3y$	$3x + 3y \leq 15$
Profit P	$3x$	$2y$	$P = 3x + 2y$



Vertices

(0,0)

(0,5)

(4,0)

(3,2)

$y \leq -2x + 8$

$y \leq -x + 5$