

Math 336
Spring 2024
Dr. Lily Yen

Quiz 4

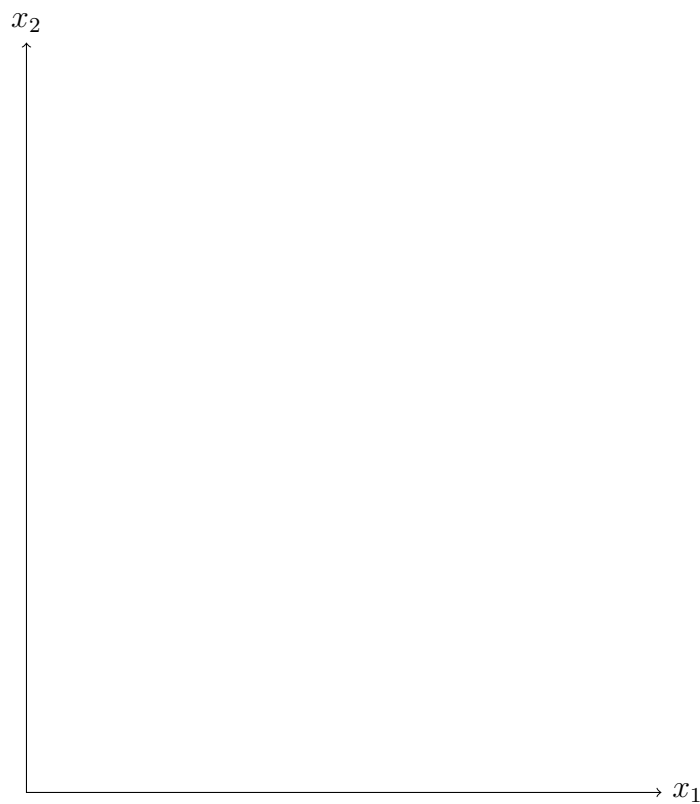
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Problem 1: Use the Simplex Method in tabular form to begin solving the following.

$$\begin{aligned} &\text{Maximize} && Z = 2x_1 + 3x_2 \\ &\text{subject to} && -3x_1 + x_2 \leq 1, \\ & && 4x_1 + 2x_2 \leq 20, \\ & && 4x_1 - x_2 \leq 10, \\ & && -x_1 + 2x_2 \leq 5, \\ &\text{and} && x_1, x_2 \geq 0. \end{aligned}$$

Five points for a correct drawing of the feasible region with all corner-point feasible solutions found and labelled.



On the tableaux below, carry out the simplex method for Iterations 0 and 1 and indicate the pivot in Iteration 1 for Iteration 2. You DON'T have to carry out Iteration 2 and beyond.

It.	B.V.	Eq	Z	x_1	x_2	x_3	x_4	x_5	x_6	RHS	Ratio
0											
1											
2											
3											
4											

Score: /10