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LINEAR PROGRAMMING ASSIGNMENT ONE.

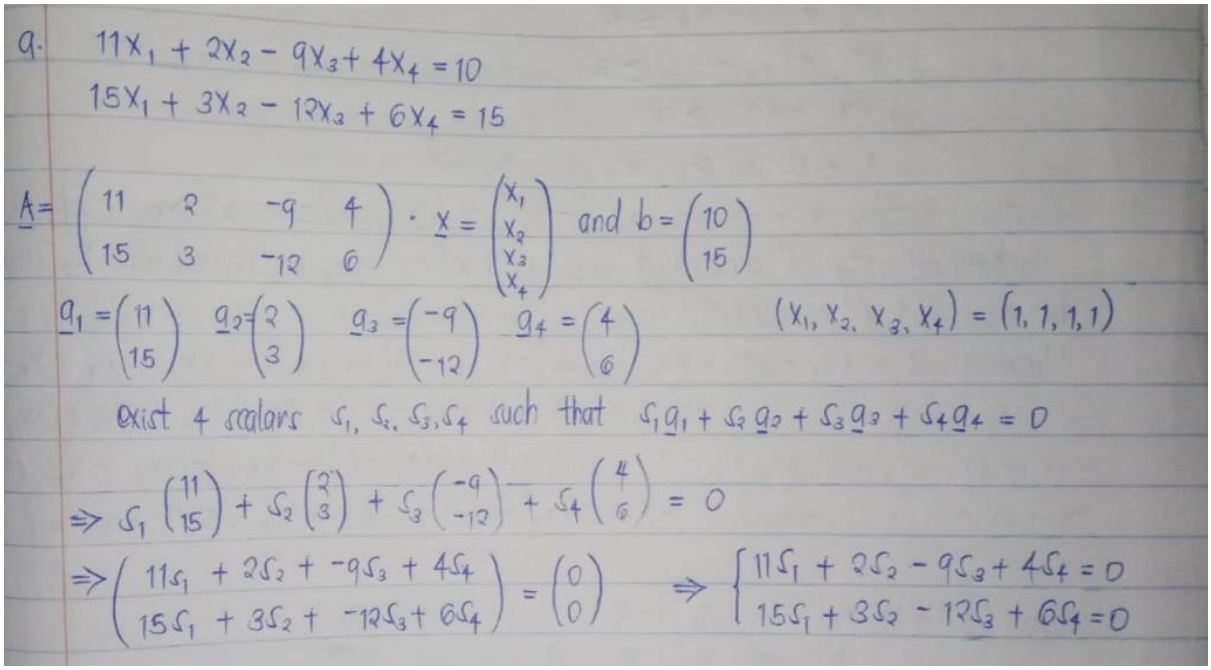
QUESTION

(a)If $X_1 = 1, X_2 = 2, X_3 = 1, X_4 = 1$ is a feasible soln of the system of linear equations

$$11X_1 + 2X_2 - 9X_3 + 4X_4 = 10$$

$$15X_1 + 3X_2 - 12X_3 + 6X_4 = 15$$

Reduce the above feasible solution to basic feasible solutions[10mks]



(b)Find the optimum solution of the following programming problem:

Maximize $Z = 2X_1 - 3X_2 + X_4$

Subject to $3X_1 + 2X_2 + X_3 = 15$

$$2X_1 + 4X_2 + X_4 = 8$$

$X_1, X_2, X_3, X_4 \geq 0$ [10mks]

TOTAL :[20mks]