

Algebraic Solution of an L.P problem

For the following L.P problem

$$\text{Maximum } z = 2x_1 + 3x_2$$

Subject to:

$$x_1 + 3x_2 \leq 6$$

$$3x_1 + 2x_2 \leq 6$$

$$x_1, x_2 \geq 0$$

- (a) Express the problem in equation form.
- (b) Determine the basic solutions of the problem and classify them as feasible and infeasible.
- (c) Determine the optimum basic feasible solution.
- (d) Verify it graphically.
- (e) Show the infeasible solution graphically.