Question 2

A linear programming problem may have more than one set of solutions. Answer True False

Question 3

In minimization LP problems the feasible region is always below the resource constraints. Answer True False

Question 19

Consider the following minimization problem:

Min z =     x1 + 2x2

s.t.             x1 + x2 ≥ 300

                  2x1 + x2 ≥ 400

                  2x1 + 5x2 ≤ 750

                  x1, x2 ≥ 0

What is the optimal solution? Write your answer in the form :  **( x1, x2, z)**. (For example, the expression  (10, 20, 50) means that x1 = 10, x2 = 20, and z = 50).

Question 20

Consider the following linear programming problem:

Max Z =           $15x + $20y

Subject to:       8x + 5y ≤ 40

                        0.4x + y ≥ 4

                        x, y ≥ 0

At the optimal solution, what is the amount of slack associated with the first constraint?