A furniture company manufactures desks and chairs. The sawing department cuts the lumber for both products, which is then sent to separate assembly departments. Assembled items are sent for finishing to the painting department. The daily capacity of the sawing department is 200 chairs or 80 desks. The chair assembly department can produce 120 chairs daily and the desk assembly department 60 desks daily. The paint department has a daily capacity of either 150 chairs or 110 desks. Given that the profit per chair is $50 and that of a desk $100.

**Question 1.** Construct a table that provides the basic information of the problem.

**Question 2.** Define the Linear Programming (LP) Models in which the definition of the variables and the construction of the objective function and constraints of the model.

**Question 3.** Use the Simplex Method to determine the optimal production mix for the company.

**Question 4.** Show the graphical LP solution of this model.

**Question 5.** Find the LP solution with Excel Solver.