Top Toys is planning a new radio and TV advertising campaign. A radio commercial costs $300 and a TV advertising costs $2000. A total budget of $20000 is allocated to the campaign. However, to ensure that each medium will have at least one radio commercial and one TV advertising, the most that can be allocated to either medium cannot exceed 80% of the total budget. It is estimated that the first radio commercial will reach 5000 people, with each additional commercial reaching only 2000 new ones. For TV, the first advertising will reach 4500 people and each additional advertising an additional 3000.

Question1. Construct a table that provides the basic information of the problem.

Question2. 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.

Question3. Use the Simplex Method to determine the budget amount be allocated between radio and TV.

Question4. Show the graphical LP solution of this model.

Question5. Find the LP solution with Excel Solver.