Suppose you are the manager of a pizza chain with 10 stores. You can choose from 3 different types of pizzas (A, B, C) to display in the stores. Since those stores are scattered all over the nation, the unit price and cost (ingredients, labor, etc) for each type of pizza are different across the stores. In addition, the demand for each type of pizza depends on displayed quantity and has the form $Demand = \boldsymbol{\alpha} * Quantity^{\boldsymbol{\beta}}$ ($\boldsymbol{\alpha}$ and $\boldsymbol{\beta}$ are different for different types of pizzas in different stores). The information of price, cost, $\boldsymbol{\alpha}$ and $\boldsymbol{\beta}$ can be found in the file Pizza.csv. Suppose each store can display at most 20 pizzas and you have a budget of $100000. Please answer the following two questions:

1. How many pizzas should be displayed in each store for each type so that you can achieve maximum profit for the whole chain?
2. Suppose for each type of pizza, you want to divide the stores into 3 groups such that a) each group has at least 2 stores, and b) stores within the same group should display the same number of that type of pizza. With this operational constraint, how can you achieve maximum profit for the whole chain?

Please write the math formulation for each question (including the decision variables, objectives, constraints), and write codes to call an appropriate solver to get the answer.