As president of the student council, you are in charge of making important decisions about the next school dance, which runs from 3pm to 6pm. You will need to compare rates of two different DJ companies: Mix It Up Techno and Bee Bop Sounds. You will need to determine how much candy to stock for candy sales at the dance and create a function to predict Student Council's profit from these sales. Finally, you are going to analyze how many tickets were sold before the dance and how many were sold at the door. You must be able to organize all of this data for Mr. Serious, your Student Council Staff Liaison by the Monday after the dance!

The information below shows the different rates offered by the two DJ companies. Compare the rates and determine which company offers the best deal for your three hour dance. Summarize your decision in a paragraph for Mr. Serious.

MixItUp Techno

Hours of Use	Total Charge
1	320
2	540
3	760
4	980
5	1200
6	1420
7	1640

Bee Bop Sounds

Bee Bop Sounds charges $195 an hour and an additional $250 set up fee for services.

The tables below shows data from the last two dances and how much time of the dance had passed and how much candy the Student Council still had in stock. Graph the information as a scatter plot. Create a linear function that will estimate the rate at which the candy that will be sold at the dance. Each piece of candy sells for $0.50 and costs $0.40 apiece to purchase. Create a linear equation that shows the average profit made by student council at the last two dances. Explain your findings in a paragraph to Mr. Serious. Include a recommendation of how many pieces of candy Student Council should have in stock at the start of the dance, how much each piece of candy should be sold for, and how this can improve the profits.

Minutes Passed	Candy in Stock
0	700
20	643
40	586
60	523
80	455
100	397
120	336
140	276
160	225
180	161

Minutes Passed	Candy in Stock
0	700
20	636
40	580
60	518
80	462
100	391
120	341
140	288
160	212
180	154

Tickets for the dance that were bought before the dance were $2 each. Tickets bought at the door were $3. Altogether, 478 tickets were sold and a total of $1110 were made. How many tickets were sold before the dance and how many were sold at the door? Explain how you figured this out and write a paragraph explaining the steps you took to solve it.

Finally, use all of your information to create a recommendation to Mr. Serious that indicates any changes Student Council should make in order to increase their profits at future dances.