

Assignment: Business Application

Research a local business to find out what you can about its profits and costs. After doing so, complete the following tasks:

1. Write two linear functions—one to model a cost that the business has and the other to model the revenue of the business. The template for your model might look something like this:

$$\text{Revenue} = (\text{amount made off each customer})(\text{number of customers})$$

$$\text{Cost} = (\text{cost created by each customer})(\text{number of customers}) + (\text{some flat cost incurred})$$

$$\text{Cost} = \text{some flat cost incurred}$$

2. Graph each of the functions you write in problem 1. Label your axes.

3. Using this information and the relationship between revenue, cost, and profit from problems 1 and 2, find the linear relation that you would expect to model profit. Please show your work.

Assignment

4. Discuss in 4-5 sentences how fair you think the prices paid by customers are. Use your functions to support your comments.

5. Provide references for the business you researched. Record Web sites from which you gathered information, people you talked to, and other data you used to complete the assignment. There needs to be a minimum of 3 references.