

Pretest and Posttest Survey

The following survey is to be administered before beginning discussion of the MAST module dealing with Wal*Mart data. It should also be administered at the end of the course after completion of selected module components.

1. Name _____

2. Course and section _____

Rate the following items according to the following scale:

1 = strongly disagree

2 = disagree

3 = uncertain

4 = agree

5 = strongly agree

3. Given data, I know how to approximate a derivative. _____

4. I have used my graphing calculator to help solve Management Calculus problems.

5. I have used my graphing calculator to model data. _____

6. I have used spreadsheets to analyze data. _____

7. I have generated charts from spreadsheet data. _____

Given the following data, perform the requested analyses assuming 1993 to be the base year:

Year	Cost	Revenue
1993	10	8
1994	12	13
1995	14	18
1996	19	23
1997	18	28

8. What is the marginal cost and marginal revenue for each year from 1993 to 1997?

9. Generate separate linear models for the cost data and the revenue data.

10. Based on your models, discuss any outliers in either data set.

11. Compute the profit for each year.

12. After correction for any outliers, model the profit data and predict the profit for the year 2003.

13. What is the derivative of each model and outlier correction(s) are made.

14. Explain the difference between derivatives found in question 13 and marginals found in question 8.