

Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point on the assignment.

1) (25 points) On the disk, the moving average is not calculated the way we did it in class. Using the numbers from the disk, type them into a spreadsheet, type in their moving average, and have the third column be our calculation of moving average. Supply a printout of the chart and print it again with the formulas showing. Note that you have to make the formula area wide enough to show it all and it may be easiest to calculate it the way we originally did it rather than the “easier method” we did later.

2A) (25 points) Suppose that the following data represents the sales for a product. Find the equation for the demand curve. Print out the table and the regression information.

B) (5 points) Graph the actual sales and the predicted sales for each observation. (Your X-axis will be the numbers 1 through 15.)

C) (5 points) Given that information, what would you predict the demand to be if the person had an income of 200 and the price was 7? What is the 95% confidence interval for the value you got? How did you get that?

D) (5 points) Is this a normal demand curve? How can you tell?

E) (25 points) Regress $\ln(\text{sales})$ on $\ln(P)$ and $\ln(I)$. Print the results.

F) (5 points) Does that give you a better fit than in part A? Why do you say that?

G) (5 points) What do you think the equation for the demand function is? How did you get that?

| sales | P | I |
|-------|----|-----|
| 68 | 3 | 100 |
| 60 | 4 | 130 |
| 35 | 7 | 120 |
| 58 | 5 | 150 |
| 24 | 7 | 80 |
| 102 | 6 | 300 |
| 130 | 3 | 200 |
| 135 | 4 | 540 |
| 421 | 3 | 600 |
| 89 | 16 | 700 |
| 145 | 4 | 300 |
| 36 | 7 | 100 |
| 77 | 9 | 400 |
| 211 | 2 | 200 |
| 270 | 4 | 500 |