## **IENG 450 QUESTIONS**

- 1. Sales of a particular product (in thousands of dollars) for the years 1997 through 2000 have been 48, 64, 67 and 83 respectively.
  - a. What sales would you predict for 2001, using a simple four-year moving average?
  - b. What sales would you predict for 2001, using a weighted moving average with weights of 0.50 for the immediate preceding year and 0.3, 0.15 and 0.05 for the three years before that?
  - c. What sales would you forecast for 2001, using the simple regression method?
- 2. Using exponential smoothing with a weight  $\alpha$  of 0.06 on actual values:
  - a. If sales are \$45,000 and \$50,000 for 1998 and 1999, what would you forecast for 2000? (The first forecast is equal to the actual value of the preceding year)
  - b. Given this forecast and actual 2000 sales of \$53,000, what would you then forecast for 2001?