## 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 $\$ \mathbf{4 5 , 0 0 0}$ and $\$ \mathbf{5 0 , 0 0 0}$ 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 $\mathbf{2 0 0 0}$ sales of $\$ \mathbf{5 3 , 0 0 0}$, what would you then forecast for 2001?
