Homework Check: FCM 12 p. 267 # 1 – 3 plus handout

Note: Trends in Graphs

Because a graph is a visual representation of the relationship between two variables, it shows how one quantity changes with respect to the other. It is important to know and understand how to describe this relationship. For example, given the following graphs, describe the relationship.

![Air Conditioning Costs Graph](image1)

In this graph, we see a positive correlation between the cost and the temperature, meaning that as the temperature increases, the cost to run the air conditioner increases. Because we have a line of best fit, we can also say that as the temperature increases, the cost increases at a constant amount.

![Non-linear Graph](image2)

In this graph, we see a non-linear relationship. As the x variable increases, so does the y variable but it is not a constant rate this time. The rate of increase in the y variable is also increasing, slowly at first and then more rapidly.
In this graph, we see a non-linear relationship. As the x variable increases, the y variable decreases, but the rate is not constant. The rate of decrease in the y variable is fast at first then slows.

In this graph, we can see it is also non-linear. As the x variable increases, the y variable increases then decreases. The y variable increases to a maximum then decreases, slowly at first then more quickly.

Trends or patterns in graph are usually used to justify decisions or make predictions in business.

◆ Homework: FCM 12 p. 273 # 1 – 7, 11, 13 (use $1.39/L as the cost of fuel)