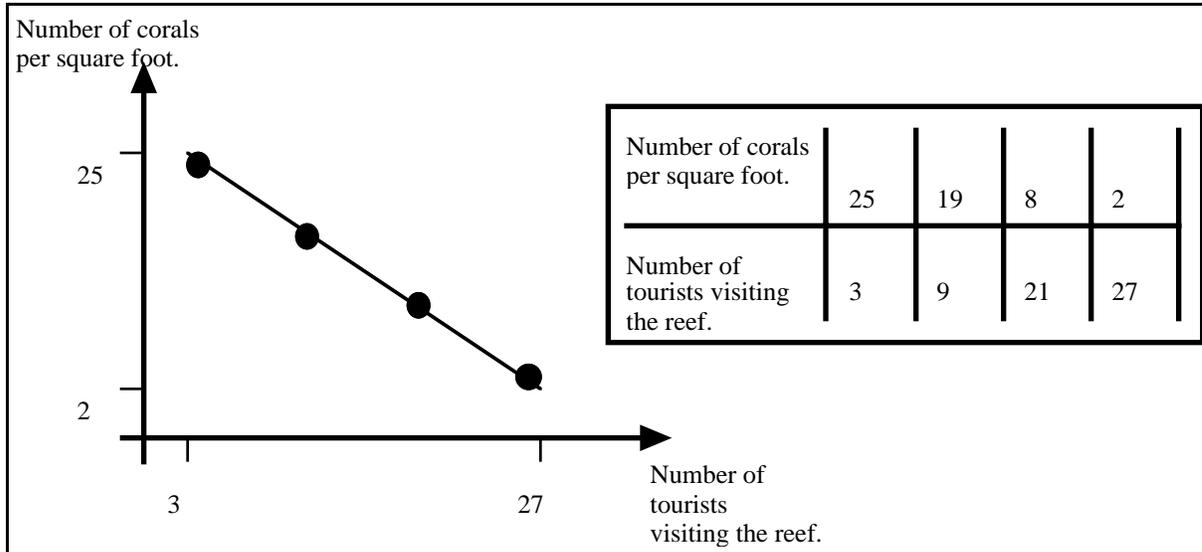




In Class Exercises (ICE) - 10/11/00

Marine biologists studying a coral reef in Hawaii have recorded data on the number of corals per square foot on the reef. In a report to the EPA, their findings were summarized into a table and a graph, as shown below.



• Do you think that the graph that the marine biologists have drawn is a good representation of the data or not?

• Does the appearance of the graph indicate the number of corals per square foot is a linear function of number of tourists? How could you use the table to check your conclusions?

- ***Using the graph or the table, find a formula for the number of corals per square foot as a function of the number of tourists. See if you can use some of the capabilities of your calculator to check the formula you obtain.***

- ***What is the domain and range of the function that you have found? Be careful to state any assumptions that you make.***

- ***Is there a significant correlation between the number of corals and the number of tourists? Do you think that there is a causal relationship here? See if you can supply reasons for and against.***