



In Class Exercises (ICE) - 11/3/00

The mayor of a crime-ridden Midwestern city claimed to be winning a war on crime. Her analysts produced the data in Table 1 (below). To try to convince the public that she was winning the war on crime, the mayor held a press conference.

Months since mayor took office	0	1	6	12	14	18
Total number of crimes	0	245	686	784	802	817

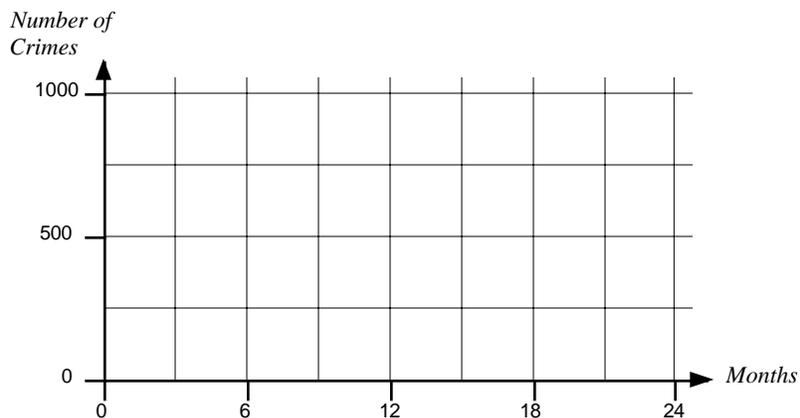
Table 1: Number of Crimes Committed

- **Is the total number of crimes increasing or a decreasing? Is this reasonable?**

- **During the first six months, approximately how many crimes were committed each month? During the last six months, approximately how many crimes were committed each month?**

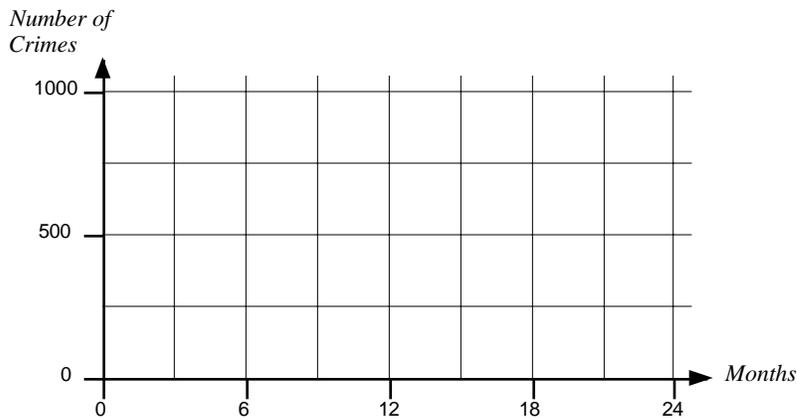
To show the reporters that she has been winning the war on crime, the mayor showed a graph of total crimes versus time. One of the reporters pointed out that the plot showed that the number of crimes had been going up ever since the mayor took office. The mayor replied, "Yes, but the crime rate has been going down ever since I took office."

- **Plot the data in Table 1 to create the graph that the mayor showed to the reporters.**



- **Who was correct, the mayor or the reporter? How can you tell from the graph of number of crimes versus time?**

- **What do you think the mayor understood by the phrase “winning the war on crime”? If the mayor won the war on crime, what would the graph of number of crimes versus time look like?**



- **Suppose that the mayor was actually losing the war on crime. Sketch a possible graph of number of crimes versus time. Explain why your graph shows that the mayor is losing the war on crime.**

