



Exploring the Data

The health clinic at a large school district has become concerned about an apparent flu epidemic. On page 1.3, you will see a spreadsheet indicating the number of new cases of the illness for each day according to health office records for the last five days. Using this data, construct a scatter plot on page 1.5.

- Describe the rate of change observed in the data and corresponding graph on pages 1.3 and 1.5.

- What term describes the type of sequence displayed in the cases data column on page 1.3? How do you know?

- Identify a term other than scatter plot which describes the type of graph generated on page 1.5. Why did you choose this term?

Extending the Data

- Predict how many students you expect to come down with the illness on day 6, assuming the same pattern continues.

- Assuming that this pattern will continue, develop an equation that will relate the number of students, y , to any day, k .

$y =$

Summarizing the Data

- Determine the total number of students affected after five days.

- Using summation notation, write and evaluate an expression that may be used to determine the total number of students affected in 5 days.

- Develop a generalized summation notation expression that can be used to determine the number of students affected after any number of days, n , assuming that this pattern will continue.

- How many total students would you expect will be affected in 7 days if the pattern continues?