LIMIT SENTENCES

Preparation (before class) and implementation (in class). Print one graph for each group of students. (We suggest groups of four.) Each group will also need one complete set of "limit sentence words" that are cut along the lines provided. You may choose to laminate the graphs and limit sentence words, so they can be reused. Sandwich baggies or rubber bands may be used to keep each set together.

Here are suggested directions to give the students:

"Using the limit sentence words, create true statements or sentences that correspond to the graphs provided. Each of the cards will be used once and only one. When you are finished, check your work with another group."

Debrief. If possible, leave some time after the activities are completed for discussion. Some questions that might be discussed are:

- In your own words, what is a limit?
- In your own words, what does it mean for a limit to exist?
- What does it mean for a limit not to exist?
- Provide examples of when the limits did/did not exist.
- What does it mean to find the limit as x goes to infinity?
- Describe some of the ways you were able to create true sentences. Provide at least one example to illustrate your thinking.
- What were the most challenging aspects of this activity?
- What questions do you have after completing this activity?

Follow-up challenge. As a challenge, you may have your students complete the worksheet on limit law rules from the graph.