Section 8.2: Relations

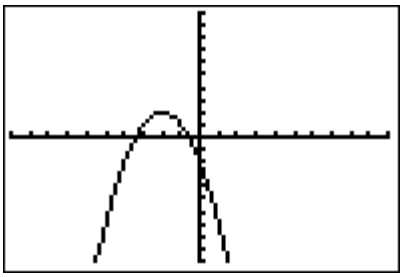
MATH 102 Course Outline Unit VI

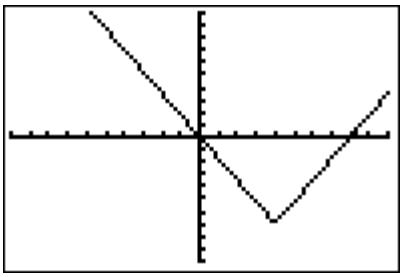
Objective: Find domain and range for relations and functions.

There are no new graphing calculator skills to introduce in this section, just a few points to mention about determining domain and range from a calculator-generated graph.

Instructor Notes:

1. Explain that when a calculator-generated graph extends to the edge of the view screen, we assume that the general pattern of the shape of the graph continues infinitely. You may want to show a few examples including a linear, quadratic, cubic, and/or absolute value graph. For instance, point out how a U-shaped graph (they are not yet familiar with the term parabola) gets wider and wider as x gets very small (to the left) and very large (to the right).





2. A good way to explain domain and range of a graph is as a list of boundaries of the graph. The domain lists the left and right boundaries, and the range lists the bottom and top boundaries.

    a. If a graph extends to the right/left edge of the view screen, its right/left boundary is ∞/$-\infty$.

    b. If a graph extends to the bottom/top edge of the view screen, its bottom/top boundary is $-\infty$/∞.