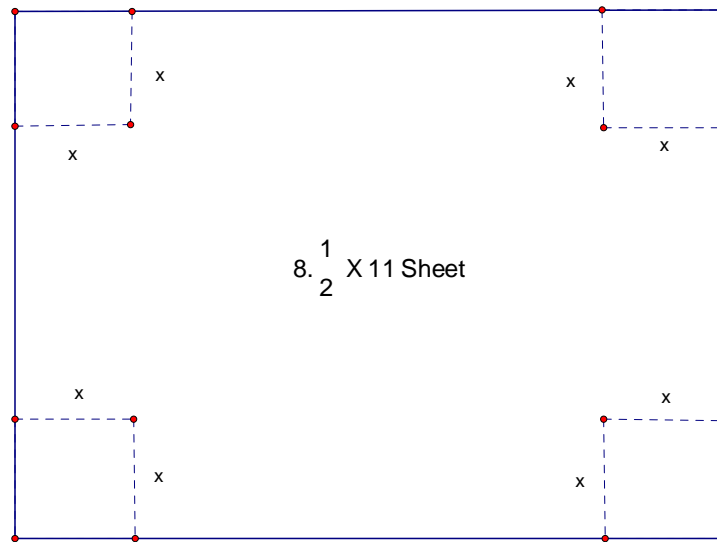


Part 2: Exploring the Box Problem Algebraically

4. Write a function that expresses the volume of the box in terms of (as a function of) the length of the side of the square you cut out to make the box.



5. Graph the function on your graphing calculator. Sketch the graph and label your axes. Use this graph to determine the maximum volume of the box.

6. Label the point on the graph that represents your box. How close was the volume of your box to the maximum? Is there only one box with the volume of your box? Explain.

