Math 4 Honors Names

Unit 6 Group Activity: *Optimization Box Problem*

An open rectangular box with square ends has a volume of 233 cubic inches. In the space below, show all work for the following.

1. Draw a sketch of the box using appropriate variables for the unknown dimensions.
2. Determine the dimensions of the box that will minimize the amount of material needed to construct the box.
3. Determine the minimum surface area of the box.
4. *CONSTRUCT THE BOX OUT OF THE MATERIALS PROVIDED.*