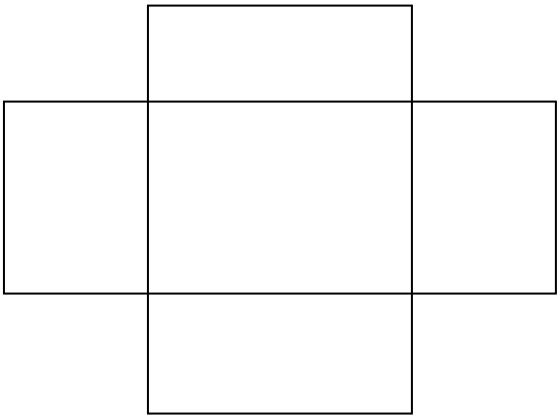
Math 180
Winter, 2009

Lab #3

A metal box with a square base and no top holds 1000 cubic centimeters. It is formed by folding up the sides of the flattened pattern pictured here and seaming up the four sides. The material for the box costs $1.00 per square meter and the cost to seam the sides is 5 cents per meter. Find the dimensions of the box that costs the least to produce.



The lab is Thursday, February 12.. NO late labs -- last day of class.

Your project will include:

- Function that you are trying to minimize.
- Your domain.
- A graph of your function.
- Your derivative and your critical points.
- Proof that you have found a minimum.