

# PROJECT 1: THE BRIDGE

Your task is to design a walking bridge over a pond. You need to design a blueprint and calculate the length, area, and cost based on the following description.

***A walking bridge will stretch across the length of an oval-shaped pond. From a point on the shoreline, the distances to opposite ends of the bridge are 95 feet and 55 feet. These measurements meet in an angle measuring  $110^\circ$ .***

The bridge needs to be 5 feet in width. The materials used will cost \$7.50 per square foot. Your client asks that you determine the length and area of the bridge, then determine its cost to build.

***If the client's budget is \$4600, can this bridge be built?***

*If it cannot, then determine an alternative materials cost that would fit in the budget.*



Image: <http://www.barharbormagic.com/images2/somesville-101.jpg>