

## Building Bridges

Recently, the residents of a growing Pennsylvania city held a meeting to try to convince government officials that the wrong bridges were about to be built in their community. They felt that when the engineers planned the bridges, many important factors were not taken into account. The people asked the engineers to re-think their plans. Could you do a better job than the engineers of deciding what type of bridge would be best at each location? Use your knowledge of bridges and the specifications below to create a design for the city.



The first bridge is needed to connect one part of the city to another and act as a 2,000 foot highway over a river. This bridge also needs lanes for the people who walk and ride their bikes to work.

The second bridge is needed in a park. The bridge must connect 2 rocky cliffs across a valley that is 100 feet deep. The people don't want to detract from the natural surroundings, therefore a minimal bridge is preferred.

The third bridge is needed to connect 2 bike paths over a 175 foot brook, so that the children can have a safe path to skateboard, rollerblade, and ride their bikes in the busy city. After constructing the other two bridges, the city will need a bridge here that is somewhat inexpensive.