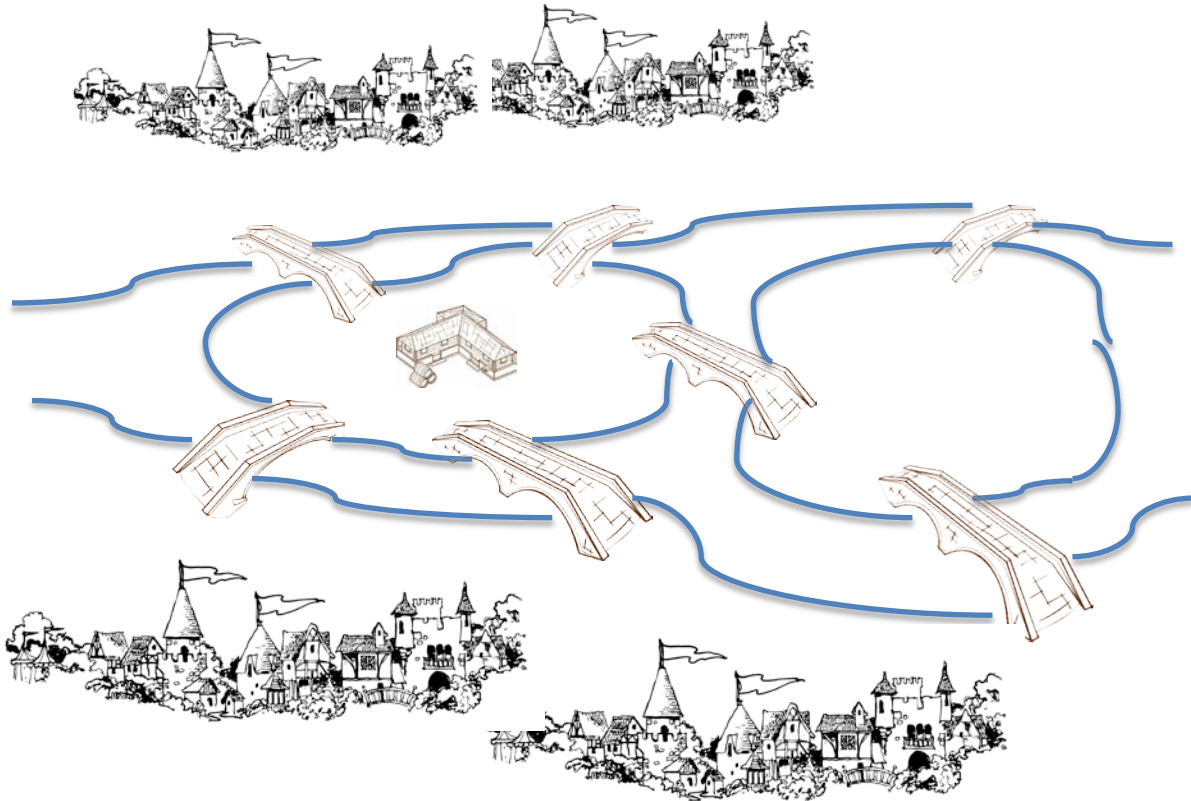


Name: _____

The Seven Bridges of Königsberg

The ancient town of Königsberg is separated by the river Pregel. Part of the town is on the Northern bank, and part of the town is on the Southern bank. In the middle of the river there are two islands and a market is on one of the islands.



1. Some people claim that they have toured the entire town by crossing every bridge exactly once. Is this possible?
2. The townsfolk on the Northern bank devise a stealthy plan and decide to build a bridge so they can start at home, tour the entire city crossing every bridge exactly once and end at the market. Is this possible? (If so, draw the bridge and label it. If not, explain why not.)
3. Now the townsfolk on the Southern Bank decide that they would like to build a bridge so that the North-bank-townsfolk can no longer tour the city, but now the South-bank-townsfolk can start at home, tour the entire city crossing every bridge exactly one and end at the market. Draw this bridge and label it.