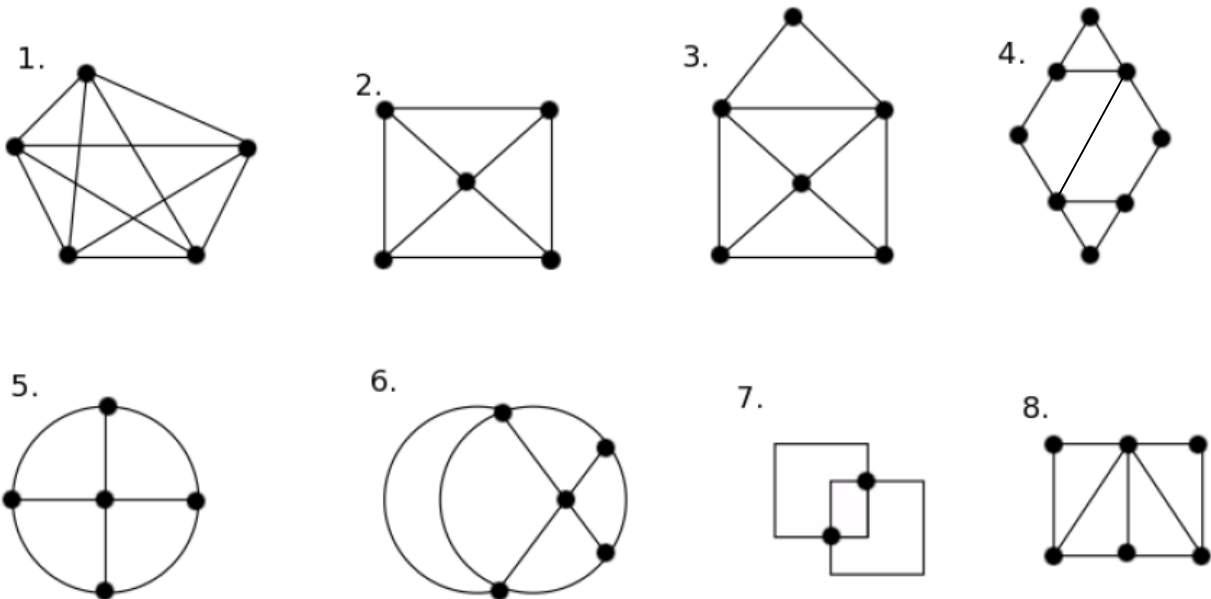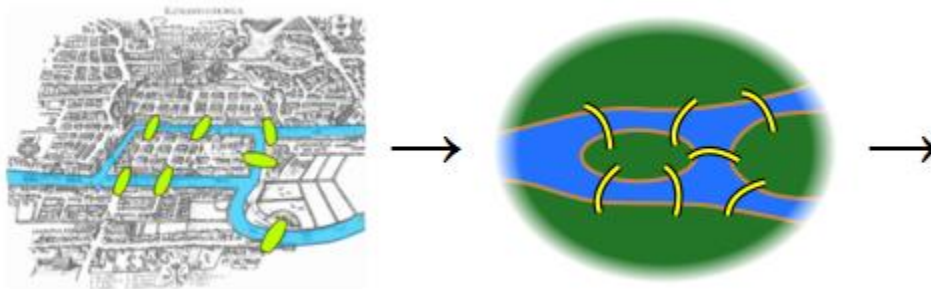# The Seven Bridges of Konigsberg

Part 1: Do Now

How many of these shapes can you trace *completely*, *without* taking your pencil off the paper or retracing any part twice?

Part 2: The Seven Bridges of Konigsberg

The city of Königsberg in Prussia (now Kaliningrad, Russia) was set on both sides of the Pregel River, and included two large islands which were connected to each other and the mainland by seven bridges.

The problem is to find a walk through the city that crosses each bridge once and only once. Can it be done?

Draw a graph of this situation. Can it be solved?

Some really complicated graphs: