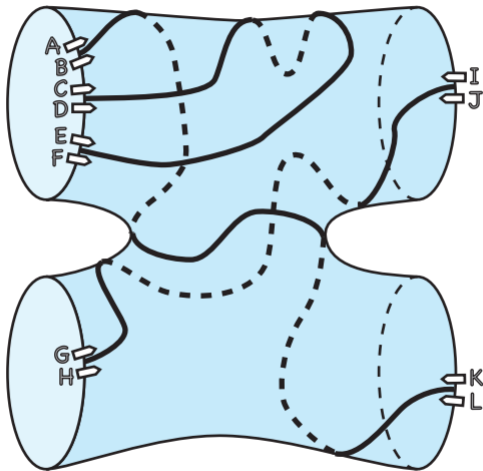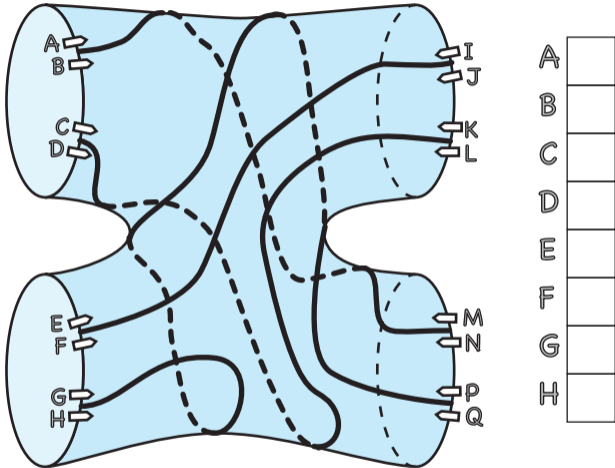Problem 1

Problem 2

Problem 1