

Department of Mechanical Engineering
Cleveland State University

MCE 503: Modeling and Simulation of Mechatronic Systems
Homework 2 - Spring 2009

OUT: 02-03-09. DUE*: 02-17-09 during class. No homework will be accepted past the due date and time.

1. (20 pts) Prove the two bond graph identities shown in Figure 1. Explain your reasoning clearly.

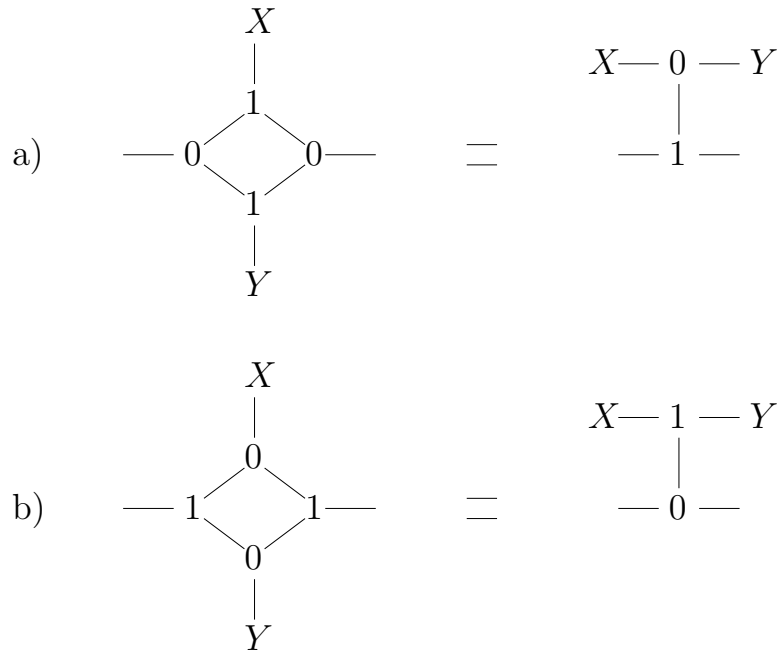


Figure 1: Problem 1

2. (80 pts) Solve the following problems from KMR:

- 3-20
- 4-1 i)
- 4-2 b)
- MCE403 and MCE503: 4-3 g). Doctoral students: solve 4-3 h) **in addition.**
- 4-9