1. Do problems 1.2, 1.4 (exclude “all ties” as an option), 1.6, 1.8, 1.10, 1.12 (by “is in effect”, we mean “functionally equivalent”) in Chapter 1 of Robinson & Ullman.

2. In 1958, the European Economic Community (also known as the Common Market) was formed as a federation of 6 nations: France, (West) Germany, Italy, Belgium, the Netherlands, and Luxembourg. Resolutions made by the Common Market were decided by a weighted voting system with status quo as follows: each of France, Germany and Italy would get 4 votes, Belgium and the Netherlands 2 each, and Luxembourg 1, with 12 votes required to pass any resolution (otherwise, the resolution would be rejected).

(a) Explain why Luxembourg, despite appearing to have 1/4 of the voting power of the largest countries, actually has a dummy vote in this system, i.e., the outcome of this voting method is completely independent of how Luxembourg votes.

**Hint:** Note that all of the other counties have an even number of votes.

(b) If each of France, Germany and Italy received one additional vote, while Belgium, the Netherlands, and Luxembourg retained the number of votes from above, and resolutions required 15 votes to pass, does the fact from part (a) remain true? If not, provide a counterexample.