

Homework 3 – MATH 2510 Spring 2019

Definitions Write proofs for the following arguments.

1. If either wages or prices are raised, there will be inflation. If there is inflation, then either Congress must regulate it or the people will suffer. If the people suffer, Congressmen will be unpopular. Congress will not regulate inflation, and Congressmen will not be unpopular. Therefore, wages will not rise.
2. Either logic is difficult, or not many students like it. If mathematics is easy, then logic is not difficult. Therefore, if many students like logic, mathematics is not easy.
3. If Algernon is in jail, then he is not a nuisance to his family. If he is not in jail, then he is not a disgrace. If he is not a disgrace, then he is in the army. If he is drunk, he is a nuisance to his family. Therefore, he is either not drunk or in the army.
4. Either John and Henry are the same age, or John is older than Henry. If John and Henry are the same age, then Elizabeth and John are not the same age. If John is older than Henry, then John is older than Mary. Therefore, either Elizabeth and John are not the same age or John is older than Mary.