CMSC 471
Resolution Refutation Problem

Suppose that on an island there are three types of people: knights, knaves, and regulars. Knights always tell the truth, knaves always lie, and regular people sometimes lie and sometimes tell the truth. Detectives have determined that one of three people from the island – Amy, Brenda, and Claire – stole a precious piece of artwork. The detectives know that exactly one of these people committed the crime, but they do not know which one. They know that the criminal is a knight, and they know that only one of the three suspects is a knight, but not which one. The detectives have obtained the following statements from the individuals: Amy – "I am innocent." Brenda – "What Amy says is true." Claire – "Brenda is not a regular person."