

Consider the following argument.

*Deficits will go down if the Democrats win the midterm elections. Either deficits don't go down or investment increases. So, if the Democrats win, the economy will boom since it does whenever investment increases.*

- a. Encode this argument as a propositional-logic inference. Be sure to define the meanings of the prime propositions that you use.
- b. Use the shorter truth table method to show that this argument is valid.
- c. Prove that the argument is valid using inference rules and logical equivalences.