

Assignment 3 hints, second portion

QUESTION 2: Re-insert parentheses into the formulas if you are going to transform them using the equivalences from 5.6. Make use of the laws for cancelling contradictions or tautologies from formulas.

Although you are not allowed to use truth tables as proof in these questions, you can certainly use a truth table to verify that what you are setting out to prove is, indeed, true.

QUESTION 4: Think of the predicate W as a set, that is $W^S \subseteq D$.

QUESTION 5: Reasonable people may disagree on what constitutes the cousins relation. For example, if my parent is a half-sibling (or step-sibling) of your parent, are we cousins? The important thing is that your precise English statement of what cousins are should match your formula.