

1. Write a detailed proof that the “DOUBLESAT” problem below is *NP*-complete.

Input: A propositional formula A .

Question: Are there *at least two* different assignments of values to the variables of A that make A True?

HINT: For your reduction, make appropriate use of a new variable. . . . If you cannot find the idea to make the reduction work, give a detailed explanation of what you are trying to do and what you have to show about it — this will be worth most of the marks.