

## Problem set #5

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This is due on Monday.

1. The sentence ‘The greatest mathematician was not a mathematician’ corresponds to 24 trees in our language, depending on the scope given to the definite description (‘the greatest mathematician’), the tense (‘was’), negation (‘not’), and the indefinite description (‘a mathematician’). If we assume that the indefinite description takes the narrowest scope of these four, and that negation takes the second-narrowest scope, there are two trees corresponding to this sentence. What are they?
2. Assume two things: (1) for any time, there is a unique greatest mathematician at that time; and (2) at every time, the individual which is the unique greatest mathematician at that time is a member of the set of mathematicians. Given these assumptions, it follows that one of the above trees is false, whereas the other might be true. Say which is which, and explain why. Your explanation may be informal, and need not involve an explicit derivation of truth conditions (though if you want to give a derivation of truth conditions under these assumptions, that is fine too).