CSC438/2404 Tutorial 3

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In this tutorial we will be covering:

- In class we saw the proof of the completeness theorem for LK. For this, we required an enumeration of all pairs of $\mathcal{L}$-terms and all $\mathcal{L}$-formula such that each term and each formula occurs *infinitely often*. However the enumeration that we gave, obtained by dovetailing over all $\mathcal{L}$-terms and all $\mathcal{L}$-formula does not satisfy this property. We will discuss how this can be modified so that the infinitely often property holds.

    1. An additional exercise is to extend this to the case where $\mathcal{L}$ contains countably many symbols.

- An example of the completeness algorithm when the sequent that we want to prove is false. This will follow Exercise 5 in the notes on LK completeness.