

# CSC438/2404 Tutorial 5

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November 1, 2019

This tutorial will cover recursive and recursive enumerable languages. We will prove whether the following languages are recursive, r.e., or neither.

- $L_1 = \{xy \in \{0, 1\}^* : \{x\} \text{ halts on all inputs within } y \text{ steps}\}$
- $L_2 = \{xy \in \{0, 1\}^* : \mathcal{L}(\{x\}) \cap \mathcal{L}(\{y\}) = \emptyset\}$