CPSC 351 — Tutorial Exercise #14

Additional Practice Problem

This problem will not be discussed during the tutorial, and solutions for this problem will not be made available. It can be used as a "practice" problem that can help you practice skills considered in the lecture presentation for Lectures #15–17, or in Tutorial Exercise #14.

1. Let $\Sigma = \{\mathsf{a}, \mathsf{b}, \mathsf{c}\}$, and let $L_1, L_2 \subseteq \Sigma^\star$ such that

   $$L_2 = \{\omega \cdot \mathsf{a} \mid \omega \in L_1\}.$$

   Suppose that L_1 is undecidable. Give a ***many-one reduction*** to prove that L_2 is also undecidable.