# Theory of Computation 

homework 2
Due: 10/21/2014

Problem 1 Show that if $L_{1}$ and $L_{2}$ are recursively enumerable languages, then so is $L_{1} \cup L_{2}$.

Problem 2 Show that the language

$$
A=\{(M ; x) \mid M(x)=\text { "Yes" }\}
$$

is undecidable.

