Quiz 3

0. Your NAME:

1. In a sentence, state the **Church-Turing Thesis**.

2. Prove the following: If L is enumerable (that is, there is a TM M that enumerates L: it outputs $\#x_1\#x_2\#\cdots$ where $L = \{x_1, x_2, \cdots\}$) then L is Turing-acceptable.

3. Indicate if the following statements are **True** or **False**. Recall that $A_{\mathrm{TM}} = \{\langle M, w\rangle : M \text{ is a TM and } M \text{ accepts } w\}$.

(a) There is a Turing machine that enumerates A_{TM}.

(b) There is a Turing machine that enumerates the complement of A_{TM}.

(c) There is a Turing machine that enumerates A_{TM} in lexicographic order.