Quiz 3

1. Prove that the following language is r.e.:

 $L~=~\{\langle M\rangle:~M~{\rm is~a~TM}~{\rm and}~M~{\rm accepts~some~string~that~ends~in~a~'0'~}\}$

2. Prove that L is not decidable.

3. Is it possible to prove that $\overline{A_{\rm TM}} \leq_{\rm m} L$? Explain.