Quiz 3

Try to get each questions fully right — likely no partial credit will be given.

1. Define what it means for a language $L$ to be **recursively enumerable** (aka, Turing acceptable).

2. Clearly state the **Church-Turing thesis**.

3. The Turing-decidable languages are closed under complement.  
   
   **True**  **False**

4. Any Turing-acceptable language is Turing-decidable.  
   
   **True**  **False**

5. If $M$ is a TM and $L = L(M)$ and there is some input $x$ such that $M$, on input $x$, eventually visits a configuration $C$ more than once, then $M$ does not decide $L$.  
   
   **True**  **False**

6. If $M$ is a TM and $L = L(M)$ and there is some input $x$ such that $M$, on input $x$, eventually visits a configuration $C$ more than once, then $L$ is not decidable.  
   
   **True**  **False**

7. Turing machine can accept infinite languages by virtue of having an infinite number of states.  
   
   **True**  **False**

8. Deterministic and probabilistic Turing Machines accept the same class of languages.  
   
   **True**  **False**