

1. (1 pt.)

- This *quick check* is **closed book, notes, etc.**
- You may use a 3 in. × 5 in. **reference card**, *hand-written by you*.
- Use the **classroom and textbook conventions** and terminology.

Read the above carefully; then write your name below:

2. (2 pts.) Provide the textbook's definition of the *small-o* notation.

3. (3 pts.) State the theorem in Chapter 7 that relates the time complexity of a multitape Turing Machine with that of a single-tape Turing Machine.

4. (2 pts.) State the theorem in Chapter 7 that relates the time complexity of a nondeterministic Turing Machine with that of a deterministic Turing Machine.

5. (2 pts.) Provide the textbook's definition of the complexity class **P**.