

1. (1 pt.)

- This *quick check* is **closed book, notes, etc.**
- Use the **classroom and textbook conventions** and terminology.

Read the above carefully; then write your name below:

2. (6 pts.) In a hash table: [Complete the sentences as precisely as possible.]

(a) A *collision* refers to ...

(b) The *linear probing* method of resolving collisions works by ...

(c) *Load factor* is defined as ...

3. (3 pts.) Consider a hash table that uses linear probing and that has a load factor of 0.75. What is the average number of probes incurred by a successful search? Justify your answer briefly. (Stating and using an appropriate theorem is sufficient.)