

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 B-tree (textbook's variant) with parameters  $M$  and  $L$ : [fill in the blanks as precisely as possible]

- (a) All non-leaf nodes, except the root, have between \_\_\_\_\_ and \_\_\_\_\_ children.
- (b) All leaf nodes have between \_\_\_\_\_ and \_\_\_\_\_ data items.
- (c) Values for  $M$  and  $L$  are selected such that a node fits in \_\_\_\_\_ .

3. (3 pts.) What does the insertion algorithm do if a new item needs to be inserted into a leaf node that is full?