

# Reading Homework 10 (Due Wed March 28, 3:20PM)

**Due** Mar 28, 2018 at 3:25pm**Points** 12**Questions** 9**Time Limit** None

## Instructions

This reading homework covers Section 11.3 of your textbook.

## Attempt History

	Attempt	Time	Score
<b>LATEST</b>	<a href="#">Attempt 1</a>	23 minutes	4 out of 12

Score for this quiz: **4** out of 12

Submitted Mar 28, 2018 at 1:53pm

This attempt took 23 minutes.

All these questions ask about the B+ tree algorithms described in your textbook. Other B+ tree algorithms exist in the real world, but please answer these questions only using the algorithms from your textbook.

### Question 1

**1 / 1 pts**

A table has an attribute, called foo, that is a candidate key for that table. A B+ index is created on foo. The find(V) algorithm described in Figure 11.11 of your textbook is performed twice consecutively, for two different V values of foo. No inserts or deletes happened between these searches. True or false: It is impossible for these different searches to visit a different number of nodes.

**Correct!**☒ True☐ False

**Question 2****1 / 1 pts**

Same question above, but now foo is not a candidate key.

**Correct!**☒ True☐ False**Question 3****0 / 1 pts**

In a non-leaf node of a B+tree, if you take the pointer immediately to the left of a key value, it is impossible that the first leaf node that is eventually reached contains that key value.

**Correct Answer**☐ True**You Answered**☒ False**Question 4****0 / 1 pts**

In a leaf node of a B+tree, if you take the pointer immediately to the left of a key value, it is impossible that this pointer does not point to a tuple with that value.

**Correct Answer**☐ True**You Answered**☒ False

**Question 5****0 / 1 pts**

Insertion of a new key --- Powell --- into the B+ tree of Figure 11.16 of your textbook will cause a non-leaf key to split.

**You Answered**☒ True**Correct Answer**☐ False**Question 6****0 / 1 pts**

Insertion of a new key --- Powell --- into the B+ tree of Figure 11.18 of your textbook will cause a non-leaf key to split.

**Correct Answer**☐ True**You Answered**☒ False**Question 7****0 / 2 pts**

After insertion of a new key --- Powell --- into the B+ tree of Figure 11.18 of your textbook, what keys will be in the root of the tree? Concatenate all keys into a single word (with no spaces) in your answer. For example, the original root of 11.18 is CalifieriEinsteinGold.

**You Answered**

CalifieriEinsteinKatz

**Correct Answers**

Einstein

einstein

Gold

gold

**Question 8****2 / 2 pts**

After insertion of a new key --- Powell --- into the B+ tree of Figure 11.14 of your textbook, the Mozart key is deleted. What keys will be in the root of the tree after these two operations? Concatenate all keys into a single word (with no spaces) in your answer (as above).

**Correct!**

GoldMozart

**Correct Answers**

GoldMozart

goldmozart

goldMozart

Goldmozart

**Question 9****0 / 2 pts**

After deletion of Brandt from the B+ tree of Figure 11.13 of your textbook, what keys will be in the direct parent of the leaf node that contains Adams? Concatenate all keys into a single word (with no spaces) in your answer (as above).

**You Answered**

AdamsCalifieriCrick

**Correct Answers**

EinsteinGold

einsteinGold

EinsteinGold

einsteinGold

Quiz Score: **4** out of 12