

## CmpE130 Homework 6

Due date: 5 Nov. 2009

1. Given a B+ tree of order 25 (sequence set) and 5,000,000 data records
  - a. What is the maximum number of sequence set pages required?
  - b. What is the maximum depth of the index set if it is a B-tree of order 5?
2. Show the B+ tree of order 4 sequence set and order 3 index set that results from loading the following set of keys in order.
  - a. MA HG IM AY MN RX CU QO DC WB KH LK DF SJ PL TQ EV DU MW RS  
NT WZ AH GI MA YM NR XC UQ OD CW BK HL KD FS JP LT QE PD UM  
WR SN TW CZ
3. In the B+ tree created in the previous question, give examples of deletions that would cause (a) redistribution and (b) concatenation in the sequence set.