MA/CSSE 473   Day 21 Announcements and Summary

Announcements:

1. HW9 due today (with a grace day until Tuesday because of the break, no late days beyond that);
2. HW 10 due Thursday.
3. Exam 2 Tuesday Nov 4 in class
4. No one told me about final exam conflicts, so I expect everyone to be there at the scheduled Monday evening time.
5. In my office today: hours 6, 8 and first half of 10.

Main ideas from today:

1. Review a proof that the maximum height of a height-balanced tree with N nodes is $\Theta (\log N)$:

2. What property do all of the leaves in a 2-3 tree have?

3. What are the upper and lower bounds on the height of a 2-3 tree with n elements?

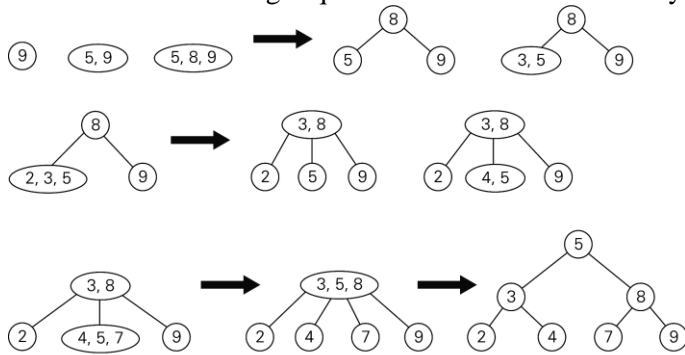4. Continue the following sequence of 2-3 tree insertions by adding 10, 11, 12, …

FIGURE 6.8 Construction of a 2-3 tree for the list 9, 5, 8, 3, 2, 4, 7

5. Show the result of inserting 84 into this tree: