Tree traversals

2/26/16
Announcements

• Quiz today: Radix sort and/or hashing

• Reading:
  – Monday: Chapter 26 (heaps)

• HW out soon
Hashing sample problem
BST operations

- search
- add
- remove
BST operations

- search
- add
- remove

How do we keep the tree balanced?
Tree traversals:
Visiting all nodes in a tree
(and practicing recursion)
void traverse(Node n) {
    if(n == null) return;
    //preorder: print here
    traverse(n.left);
    //inorder: print here
    traverse(n.right);
    //postorder: print here
}
Which of the following is a preorder traversal of the tree below?

A. a,b,c,d,e,f,g,h
B. a,b,c,d,f,e,g,h
C. a,b,d,e,c,f,g,h
D. a,c,b,d,f,e,g,h
E. None of the above
Which of the following is a preorder traversal of the tree below?

A. a,b,c,d,e,f,g,h
B. a,b,c,d,f,e,g,h
C. a,b,d,e,c,f,g,h
D. a,c,b,d,f,e,g,h
E. None of the above
Which of the following is an inorder traversal of the tree below?

A. a,b,c,d,e,f,g,h
B. b,a,c,d,e,g,f,h
C. d,b,e,a,g,f,h,c
D. d,b,a,e,g,f,c,h
E. None of the above
Which of the following is an inorder traversal of the tree below?

A. a,b,c,d,e,f,g,h
B. b,a,c,d,e,g,f,h
C. d,b,e,a,g,f,h,c
D. d,b,a,e,g,f,c,h
E. None of the above
Which of the following is a postorder traversal of the tree below?

A. b,d,e,a,f,c,g,h
B. b,d,e,g,h,f,c,a
C. d,e,b,a,g,h,f,c
D. d,e,b,g,h,f,c,a
E. None of the above
Which of the following is a postorder traversal of the tree below?

A. b,d,e,a,f,c,g,h
B. b,d,e,g,h,f,c,a
C. d,e,b,a,g,h,f,c
D. d,e,b,g,h,f,c,a
E. None of the above