

## 1) (5 pts) ALG (Binary Search Trees)

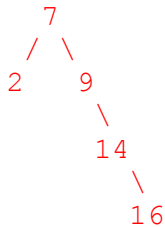
Consider the following tree traversals:

**Pre-order:** 7 2 9 14 16

**Post-order:** 2 16 14 9 7

**In-order:** 2 7 9 14 16

Is it possible for a **single** binary **search** tree to give rise to all three of those traversals? If so, draw the tree. If not, clearly explain why it's not possible.

**Solution:****Grading:**

5/5 for correct answer.

3/5 if they're very close (e.g., just one value is out of place)

0/5 otherwise (including if they try to explain that this isn't possible)