

# 235. Lowest Common Ancestor of a Binary Search Tree

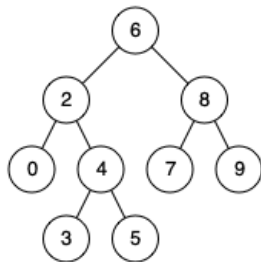
## Difficulty : Medium

<https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree>

Given a binary search tree (BST), find the lowest common ancestor (LCA) node of two given nodes in the BST.

According to the [definition of LCA on Wikipedia](#): “The lowest common ancestor is defined between two nodes  $p$  and  $q$  as the lowest node in  $T$  that has both  $p$  and  $q$  as descendants (where we allow **a node to be a descendant of itself**).”

### Example 1:

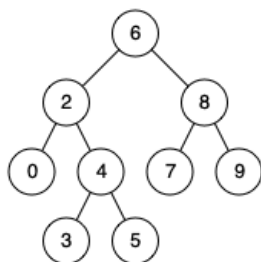


**Input:** root = [6,2,8,0,4,7,9,null,null,3,5], p = 2, q = 8

**Output:** 6

**Explanation:** The LCA of nodes 2 and 8 is 6.

### Example 2:



**Input:** root = [6,2,8,0,4,7,9,null,null,3,5], p = 2, q = 4

**Output:** 2

**Explanation:** The LCA of nodes 2 and 4 is 2, since a node can be a descendant of itself according to the LCA definition.

### Example 3:

**Input:** root = [2,1], p = 2, q = 1

**Output:** 2

### Constraints:

- The number of nodes in the tree is in the range  $[2, 10^5]$ .
- $-10^9 \leq \text{Node.val} \leq 10^9$
- All  $\text{Node.val}$  are **unique**.
- $p \neq q$
- $p$  and  $q$  will exist in the BST.