

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1	Solution 2	Solution 1	Solution 2	Solution 3
<pre>1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved. 2 3 class Program { 4     class BST { 5         var value: Int 6         var left: BST? 7         var right: BST? 8 9         init(value: Int) { 10             self.value = value 11             left = nil 12             right = nil 13         } 14     } 15 16     // Average: O(log(n)) time   O(log(n)) space 17     // Worst: O(n) time   O(n) space 18     func findClosestValueInBST(tree: BST?, target: Int) -&gt; Int { 19         var closest = Int(Int32.max) 20         return findClosestValueInBSTHelper(tree: tree, 21   target: target, closest: &amp;closest) 22     } 23 24     func findClosestValueInBSTHelper(tree: BST?, 25                                     target: Int, closest: inout Int) -&gt; Int { 26 27         if tree == nil { 28             return closest 29         } 30 31         if let tree = tree { 32             let closestDifference = target - closest 33             let currentDifference = target - tree.value 34 35             if closestDifference.magnitude &gt; currentDifference.magnitude { 36                 closest = tree.value 37             } 38 39             if let tree = tree, target &lt; tree.value { 40                 if let left = tree.left { 41                     return findClosestValueInBSTHelper( 42                         tree: left, target: target, closest: &amp;closest 43                     ) 44                 } else { 45                     return closest 46                 } 47             } else if let tree = tree, target &gt; tree.value { 48                 if let right = tree.right { 49                     return findClosestValueInBSTHelper( 50                         tree: right, target: target, closest: &amp;closest 51                     ) 52                 } else { 53                     return closest 54                 } 55             } else { 56                 return closest 57             } 58         } 59     } 60 }</pre>		<pre>1 class Program { 2     class BST { 3         var value: Int 4         var left: BST? 5         var right: BST? 6 7         init(value: Int) { 8             self.value = value 9             left = nil 10            right = nil 11        } 12    } 13 14    func findClosestValueInBST(tree: BST?, target: Int) -&gt; Int { 15        // Write your code here. 16        return -1 17    } 18 } 19</pre>		

**Run or submit code when you're ready.**