

Sheet1

#	Pri.	Story	Example	Test
1		As a Programmer, I want to print a tree so I can see what is in it.	If you type "trees -p '(a(b())(c()))' you will see (a(b##)(c##)).	<pre>Test 1: print_tree Empty test tree: # Test tree (a(b)(c)): (a(b##)(c##))</pre>
2		As a Programmer, I want a function to print a pre-order traversal of a complete binary tree, to see how it is done.	If you type "trees -e '(a(b())(c()))' you will see abc.	<pre>Test 2: preorder traversal print_preorder:(a) a print_preorder:(a(b)()) ab print_preorder:(a(b)(c)) abc print_preorder:(a(b(c(d)(e))())()) abcde print_preorder:(a(b(c)(d))e) abcde print_preorder:(a((b))) ab</pre>
3		As a Programmer, I want a function to print a post-order traversal of a complete binary tree, to see how it is done.	If you type "trees -o '(a(b())(c()))' you will see bca.	<pre>Test 3: postorder traversal print_postorder:(a) a print_postorder:(a(b)()) ba print_postorder:(a(b)(c)) bca print_postorder:(a(b(c(d)(e))())()) decba print_postorder:(a(b(c)(d))e) cdbea print_postorder:(a((b))) ba</pre>

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4	As a Programmer, I want a function to print a in-order traversal of a complete binary tree, to see how it is done.	If you type "trees -i '(a(b()))(c())'" you will see bac.	<pre> Test 4: inorder traversal print_inorder:(a) a print_inorder:(a(b)) ba print_inorder:(a(b)(c)) bac print_inorder:(a(b(c(d)(e))())()) dceba print_inorder:(a(b(c)(d))e) cbdae print_inorder:(a()(b)) ab         </pre>
6	As a Programmer, I want to add a node to a binary search tree, to see how it is done.	If you type "trees -b 'abc' you will see (a#(b#(c##))).	<pre> Test 5: Binary Search Trees Added items a to binary search tree Result: : (a##) Added items ab to binary search tree Result: : (a#(b##)) Added items abc to binary search tree Result: : (a#(b#(c##))) Added items cba to binary search tree Result: : (c(b(a##)#)#) Added items bca to binary search tree Result: : (b(a##)(c##))         </pre>