

# Test Case 1

```

/*
      a
    b   c
  d e f g
h i j k l m n o
*/

$tree['a'] = ['b', 'c'];
$tree['b'] = ['d', 'e'];
$tree['c'] = ['f', 'g'];
$tree['d'] = ['h', 'i'];
$tree['e'] = ['j', 'k'];
$tree['f'] = ['l', 'm'];
$tree['g'] = ['n', 'o'];

```

```

#Selected node of subtree to sum
$subTreeNode = 'c';

```

a(52)  
 b(20)  
 d(13)  
 h(3)  
 i(10)  
 e(7)  
 j(2)  
 k(5)  
 c(32)  
 f(12)  
 l(4)  
 m(8)  
 g(20)  
 n(10)  
 o(10)

Sub tree 'c':

c(32)  
 f(12)  
 l(4)  
 m(8)  
 g(20)  
 n(10)  
 o(10)

Sub tree total value: 96

# Test Case 2

```

/*
      a
    b   c
  d e f g
h i j k l m n o
*/

$tree['a'] = ['b', 'c'];
$tree['b'] = ['d', 'e'];
$tree['c'] = ['f', 'g'];
$tree['d'] = ['h', 'i'];
$tree['e'] = ['j', 'k'];
$tree['f'] = ['l', 'm'];
$tree['g'] = ['n'];
$tree['n'] = ['o'];

```

```

#Selected node of subtree to sum
$subTreeNode = 'b';

```

a(40)  
 b(25)  
 d(14)  
 h(7)  
 i(7)  
 e(11)  
 j(2)  
 k(9)  
 c(15)  
 f(9)  
 l(3)  
 m(6)  
 g(6)  
 n(6)  
 o(6)

Sub tree 'b':

b(25)  
 d(14)  
 h(7)  
 i(7)  
 e(11)  
 j(2)  
 k(9)

Sub tree total value: 75

## Test Case 3

```
/*  
      a  
    b   c  
  d e f g  
h i j k  
l      m  
*/  
  
$tree['a'] = ['b', 'c'];  
$tree['b'] = ['d', 'e'];  
$tree['c'] = ['f', 'g'];  
$tree['d'] = ['h'];  
$tree['e'] = ['i'];  
$tree['f'] = ['j'];  
$tree['g'] = ['k'];  
$tree['h'] = ['l'];  
$tree['k'] = ['m'];
```

```
#Selected node of subtree to sum  
$subTreeNode = 'b';
```

a(17)  
b(11)  
d(8)  
h(8)  
l(8)  
e(3)  
i(3)  
c(6)  
f(1)  
j(1)  
g(5)  
k(5)  
m(5)

Sub tree 'b':

b(11)  
d(8)  
h(8)  
l(8)  
e(3)  
i(3)

Sub tree total value: 41