

lib/search/binary-search_unittest.ath

```
1 load "binary-search"
2
3 define Less1 := no-renaming
4
5 assert (theory-axioms SWO.theory)
6
7 (!prove-property SWO.binary-search.found Less1 SWO.theory)
8 (!prove-property SWO.binary-search.not-found Less1 SWO.theory)
9 (!prove-property SWO.binary-search.in-iff-result-not-null Less1 SWO.theory)
10
11 declare bs-int: [Int (BinTree Int)] -> (BinTree Int)
12 define swol := (renaming |{SWO.binary-search := bs-int, SWO.< := Real.<}|)
13 assert (swol SWO.binary-search.axioms)
14
15 define tree1 :=
16   (node (node null
17         2
18         (node (node null
19               3
20               null)
21             5
22             null))
23         7
24         (node (node null
25               11
26               null)
27             13
28             null))
29
30
31 (eval (bs-int 5 null))
32
33 (eval (bs-int 5 tree1))
34
35 (eval (bs-int 13 tree1))
36
37 (eval (bs-int 9 tree1))
```