

lib/basic/nested-eval-problem.ath

```
1  # This example, given by Kostas in his r1813 log message, works now after
2  # the checkin of drive.sml and re.sig in r1819.
3
4  datatype N := zero | (S N)
5
6  module N {
7    declare Plus: [N N] -> N
8
9    module Plus {
10     assert right-zero      := (forall ?n . ?n Plus zero = ?n)
11     assert right-nonzero := (forall ?m ?n . ?n Plus S ?m = S (?n Plus ?m))
12   }
13   declare Times: [N N] -> N
14   module Times {
15     assert right-zero      := (forall ?x . ?x Times zero = zero)
16     assert right-nonzero := (forall ?x ?y . ?x Times S ?y = (?x Times ?y) Plus ?x)
17     (print "\n3 Plus 3 = " (eval (Plus (S S S zero) (S S S zero))))
18   }
19 }
```