lib/basic/fun-test.ath

```
1   # A simple example that shows that definitions of metaids made in fun
2   # are not properly entered as definitions within a module.
3
4   datatype N := zero | (S N)
5
6   declare f: [N] -> N
7
8   define x := ?x
9
10  define axioms :=
11    (fun [(f zero) = (S zero)    'A
12         (f (S x)) = x           'B])
13
14  define (all as [A1 A2]) :=
15    (fun [(f zero) = (S zero)
16         (f (S x)) = x            ])
17
18  # A and B get defined at the top leve, so these work:
19
20  A
21
22  B
23
24  module M {
25  declare g: [N] -> N
26
27  define x := ?x
28
29  define axioms :=
30    (fun [(g zero) = (S zero)    'C
31         (g (S x)) = x           'D])
32
33  define (all as [A1 A2]) :=
34    (fun [(g zero) = (S zero)
35         (g (S x)) = x            ])
36
37  # These work:
38
39  C
40
41  D
42  } # module M
43
44  M.D  # Error: Could not find a value for M.D.
45
46  # Omit the above and try
47
48  D    # Error: Could not find a value for D.
49
50  # so it's not defined at top level either.
51
52  EOF
53  (load "fun-test")
```