

```
Last login: Fri Mar  9 13:24:52 on ttys004
carbon:$ cd Sample\ Programs\Sec_10_3-35pm/
carbon:$ utop
```

e to utop version 2.0.2 (using OCaml version 4.

Type #utop_help for help about using utop.

```
-( 15:54:42 )-< command 0 >-----{ counter: 0 }-
utop # #use "cond.ml";;
val cond : bool -> 'a -> 'a -> 'a = <fun>
val sumton : int -> int = <fun>
-( 15:54:42 )-< command 1 >-----{ counter: 0 }-
utop # sumton 4 ;;
Stack overflow during evaluation (looping recursion?).
-( 15:55:03 )-< command 2 >-----{ counter: 0 }-
utop # #use "lazy.ml";;
type 'a lazee = 'a hidden ref
and 'a hidden = Value of 'a | Thunk of (unit -> 'a)
val delay : (unit -> 'a) -> 'a lazee = <fun>
val force : 'a lazee -> unit = <fun>
val demand : 'a lazee -> 'a = <fun>
type 'a stream = Cons of 'a * 'a stream lazee
val from : int -> int stream = <fun>
step 1
val nats : int stream = Cons (1, {contents = Thunk <fun>})
val head : 'a stream -> 'a = <fun>
val tail : 'a stream -> 'a stream = <fun>
val take : int -> 'a stream -> 'a list = <fun>
-( 15:55:03 )-< command 3 >-----{ counter: 0 }-
utop # nats ;;
- : int stream = Cons (1, {contents = Thunk <fun>})
-( 16:23:20 )-< command 4 >-----{ counter: 0 }-
utop # head nats ;;
- : int = 1
-( 16:23:24 )-< command 5 >-----{ counter: 0 }-
utop # tail nats ;;
step 2
- : int stream = Cons (2, {contents = Thunk <fun>})
-( 16:23:50 )-< command 6 >-----{ counter: 0 }-
```

```

utop # tail nats ;;
- : int stream = Cons (2, {contents = Thunk <fun>})
-( 16:23:55 )-< command 7 >-----{ counter: 0 }-
utop # nats ;;
- : int stream =
Cons (1,
  {contents = Value (Cons (2, {contents = Thunk <fun>}))})
-( 16:24:14 )-< command 8 >-----{ counter: 0 }-
utop # take 5 nats ;;
step 3
step 4
step 5
step 6
- : int list = [1; 2; 3; 4; 5]
-( 16:24:25 )-< command 9 >-----{ counter: 0 }-
utop # nats ;;
- : int stream =
Cons (1,
  {contents =
    Value
      (Cons (2,
        {contents =
          Value
            (Cons (3,
              {contents =
                Value
                  (Cons (4,
                    {contents =
                      Value
                        (Cons (5,
                          {contents =
                            Value
                              (Cons (6, {contents = Thunk <fun>})))
                                )
                              )
                            )
                          )
                        )
                      )
                    )
                  )
                )
              )
            )
          )
        )
      )
    )
  )
-( 16:25:04 )-< command 10 >-----{ counter: 0 }-
utop # #use "cond.ml";;
val cond : bool -> 'a -> 'a -> 'a = <fun>
val sumton : int -> int = <fun>
Stack overflow during evaluation (looping recursion?).
-( 16:25:04 )-< command 11 >-----{ counter: 0 }-
utop #

```

Arg	Array	ArrayLabels	Assert_failure	Bigarray	Buffer	Bytes	
-----	-------	-------------	----------------	----------	--------	-------	--