a04 CLI tests with output

Input	Output
(> 4 3)	#t
(> 3 4)	#f
(< 3 4)	#t
(< 4 3)	#f
(= 4 4)	#t
(= 3 4)	#f
(< km mile)	#t
(< mile km)	#f
(< (* 2 km) mile)	#f
(< (* 3 (/ mile hour)) (/ meter second))	#f
(if (> 4 3) 5 6)	'(5 () ())
(if (> 3 4) 5 6)	'(6 () ())
(if (< (* 3 (/ mile hour)) (/ meter second)) (* 15 ounce) pound)	'(0.45359237 (kg) ())
(if (> (* 3 (/ mile hour)) (/ meter second)) (* 15 ounce) pound)	'(0.425242846875 (kg) ())
(/ (if (> 4 3) 5 6) 5)	'(1 () ())
(* (if (> 3 4) 5 6) 5)	'(30 () ())
(/ (if (< (* 3 (/ mile hour)) (/ meter second)) (* 15 ounce) pound) kg)	'(0.45359237 () ())
(/ (if (> (* 3 (/ mile hour)) (/ meter second)) (* 15 ounce) pound) kg)	'(0.425242846875 () ())
(if (> 4 3) (if (< 5 6) 7 8) (if (< 6 5)9 10))	'(7 () ())
(if (< 4 3) (if (< 5 6) 7 8) (if (< 6 5)9 10))	'(10 () ())
(* 4 (if (> 4 3) (if (< 5 6) 7 8) (if (< 6 5)9 10)))	'(28 () ())
(/ (if (< 4 3) (if (< 5 6) 7 8) (if (< 6 5)9 10)) 5)	'(2 () ())
(let () 5)	'(5 () ())
(let () (* 3 4))	'(12 () ())
(let () (/ 60 5))	'(12 () ())
(let (($x 5)) $x)	'(5 () ())
(let (($x 5)) (* $x meter))	'(5 (meter) ())
(let (($x 5)) (* $x $x))	'(25 () ())
(let (($x 5) ($y 6) ($z 35)) (/ (* $y $z) $x))	'(42 () ())
(let (($x (* 2 3))) $x)	'(6 () ())
(let (($x (* 2 3))) (* $x meter))	'(6 (meter) ())
(let (($x (* 2 3))) (* $x $x))	'(36 () ())
(let (($x (* 2 3)) ($y (* 4 5)) ($z (* 6 7))) (/ (* $y $z) $x))	'(140 () ())
(let* () 5)	'(5 () ())
(let* () (* 3 4))	'(12 () ())

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(let* () (/ 60 5))	'(12 () ())
(let* (($x 5)) $x)	'(5 () ())
(let* (($x 5)) (* $x meter))	'(5 (meter) ())
(let* (($x 5)) (* $x $x))	'(25 () ())
(let* (($x 5) ($y 6) ($z 35)) (/ (* $y $z) $x))	'(42 () ())
(let* (($x (* 2 3))) $x)	'(6 () ())
(let* (($x (* 2 3))) (* $x meter))	'(6 (meter) ())
(let* (($x (* 2 3))) (* $x $x))	'(36 () ())
(let* (($x (* 2 3)) ($y (* 4 5)) ($z (* 6 7))) (/ (* $y $z) $x))	'(140 () ())
(let* (($x 5) ($y $x)) (* $y $x))	'(25 () ())
(let* (($x 5) ($y (* 6 $x))) (* $y $x))	'(150 () ())
(let (($f (lambda ($x) $x))) ($f 5))	'(5 () ())
(let (($f (lambda ($x) $x))) ($f (* 5 meter)))	'(5 (meter) ())
(let (($f (lambda ($x) (* meter $x)))) ($f 5))	'(5 (meter) ())
(let (($f (lambda ($x) (* meter $x)))) ($f (* 6 7)))	'(42 (meter) ())
(let (($f (lambda ($x) (* $x $x)))) ($f 5))	'(25 () ())
(let (($f (lambda ($x $y) (* $x $y)))) ($f 6 7))	'(42 () ())
(let (($f (lambda ($x $y) (* $x $y))) ($g (lambda ($z) (* $z $z)))) ($f 6 ($g 3)))	'(54 () ())
(let* (($f (lambda ($x $y) (* $x $y))) ($g (lambda ($z) ($f $z $z)))) ($g 3))	'(9 () ())
(let* (($f (lambda ($x $y) (* $x $y))) ($g (lambda ($z) ($f $z $z)))) ($f ($g 3) ($g 4)))	'(144 () ())
(let* (($f (lambda ($x $y) (* $x $y))) ($f (lambda ($z) ($f $z $z)))) ($f 3))	'(9 () ())
(define $a 6)	'(6 () ())
(* 7 $a)	'(42 () ())
(let (($a 99)) (* 7 $a))	'(693 () ())
(* 7 $a)	'(42 () ())
(let (($b 99)) (* $a $b))	'(594 () ())
(let (($h (lambda ($x) (* 7 $x)))) ($h $a))	'(42 () ())
(let (($h (lambda ($x) (* $a $x)))) ($h 7))	'(42 () ())
(let (($a 99) ($h (lambda ($x) (* $a $x)))) ($h 7))	'(42 () ())
(define $cube (lambda ($x) (* $x $x $x)))	'(*closure* ($x) (* $x $x $x) (($a (6 () ())) ($x (1 (kg meter) (second))) ($a (999 () ()))))
($cube 2)	'(8 () ())
(* ($cube 2) ($cube 3))	'(216 () ())
($cube ($cube 2))	'(512 () ())

($cube (let (($cube (lambda ($x) (* $x $x)))) ($cube 2)))	'(64 () ())
(define $double (lambda ($f) (lambda ($x) ($f ($f $x)))))	'(*closure* ($f) (lambda ($x) ($f ($f $x))) (($cube (*closure* ($x) (* $x $x $x) (($a (6 () ())) ($x (1 (kg meter) (second))) ($a (999 () ()))))) ($a (6 () ())) ($x (1 (kg meter) (second))) ($a (999 () ()))))
(define $g ($double $cube))	'(*closure* ($x) ($f ($f $x)) (($f (*closure* ($x) (* $x $x $x) (($a (6 () ())) ($x (1 (kg meter) (second))) ($a (999 () ())))))) ($cube (*closure* ($x) (* $x $x $x) (($a (6 () ())) ($x (1 (kg meter) (second))) ($a (999 () ())))))) ($a (6 () ())) ($x (1 (kg meter) (second))) ($a (999 () ()))))
($g 3)	'(19683 () ())

```
(define $h (lambda ($x) (if (< $x 1) $x (* $x ($h (/ $x 2))))))
```

```
'(*closure* ($x) (if (< $x 1) $x
(* $x ($h (/ $x 2)))) (($g
(*closure* ($x) ($f ($f $x)) (($f
(*closure* ($x) (* $x $x $x) (($a
(6 () ())) ($x (1 (kg meter)
(second))) ($a (999 () ()))))))
($cube (*closure* ($x) (* $x $x
$x) (($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($double (*closure* ($f)
(lambda ($x) ($f ($f $x)))
(($cube (*closure* ($x) (* $x $x
$x) (($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($cube (*closure* ($x) (*
$x $x $x) (($a (6 () ())) ($x (1
(kg meter) (second))) ($a (999 ()
()))))) ($a (6 () ())) ($x (1 (kg
```

```
($h 2)
```

```
'(1 () ())
```

```
(* 8 ($h 3))
```

```
'(27 () ())
```

```
(define $d ($double $h))
```

```
'(*closure* ($x) ($f ($f $x))
(($f (*closure* ($x) (if (< $x 1)
$x (* $x ($h (/ $x 2)))) (($g
(*closure* ($x) ($f ($f $x)) (($f
(*closure* ($x) (* $x $x $x) (($a
(6 () ())) ($x (1 (kg meter)
(second))) ($a (999 () ()))))))
($cube (*closure* ($x) (* $x $x
$x) (($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($double (*closure* ($f)
(lambda ($x) ($f ($f $x)))
(($cube (*closure* ($x) (* $x $x
$x) (($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($cube (*closure* ($x) (*
$x $x $x) (($a (6 () ())) ($x (1
(kg meter) (second))) ($a (999 ()
()))))) ($a (6 () ())) ($x (1 (kg
meter) (second))) ($a (999 ()
()))))) ($cube (*closure* ($x) (*
$x $x $x) (($a (6 () ())) ($x (1
(kg meter) (second))) ($a (999 ()
()))))) ($a (6 () ())) ($x (1 (kg
```

```
($d 8)
```

```
'(16384 () ())
```