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# Unit Test: programlisting.005

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**Table 1. Lisp function**

```
(defun cycle-length (n & (len 1) (top 0))
  (cond ((= n 1) (values len top))
        ((evenp n) (cycle-length (ash n -1) (1+ len) (max top n)))
        (t (let ((next (1+ (* 3 n))))
              (cycle-length next (1+ len) (max top next))))))
```