

```

; quicksort in lisp
(defun pivot (a) (car a))
(defun lesser (a b)
  (if (null a)
      nil
      (if (> b (pivot a))
          (cons (pivot a) (lesser (cdr a) b))
          (lesser (cdr a) b))))
(defun larger (a b)
  (if (null a)
      nil
      (if (< b (pivot a))
          (cons (pivot a) (larger (cdr a) b))
          (larger (cdr a) b))))
(defun equals (a b)
  (if (null a)
      nil
      (if (= b (pivot a))
          (cons (pivot a) (equals (cdr a) b))
          (equals (cdr a) b))))
(defun qsort (a)
  (if (< (length a) 2)
      a
      (append (qsort(lesser a (pivot
a))) (append (equals (cdr a)
(pivot a))
(cons (pivot a) (qsort(larger a
(pivot a))))))))
(defun main ()
  (progn (format t "Enter list:")
        (setf a (read))
        (print (qsort a))))
(main)

```

Output

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Enter list:(2 9 3 8 5 0 1)
(0 1 2 3 5 8 9)

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