LISP ASQ

Part 1

Convert the expression to Lisp notation (infix)

5 * 2 + z

(+ (* 5 2) z)

Convert the expression to Lisp notation (infix)

2 * y – (4 * z + x)

(- (* 2 y) (+ (* 4 z) x))

Evaluate the following form

(CONS '(1) '(2 3 4))

- <u>(1 2 3 4)</u>
- ((1) (2 3 4))
- ((1) 2 3 4)
- ERROR

Evaluate the following form

(FIRST '((1) 2))

- 1
- <u>(1)</u>
- 2
- (2)
- ((1) 2)

Evaluate the following form

(REST '((1) (2)))

((2))

Write the number of elements of the result of the form

(APPEND '((1 2)) '((3 4) 5))

3

Write the number of elements of the result of the form

(LIST '((1 2)) '((3 4) 5))

2

Select all expressions that evaluate to T

- <u>(ATOM 'A)</u>
- (ATOM '(1 2 3))
- <u>(NULL NIL)</u>
- <u>(NULL ())</u>

Select all expressions that evaluate to T

- (SYMBOLP NIL)
- (SYMBOLP ())
- (LISTP NIL)
- (LISTP ())

Select all dot pair notations which are lists

(A . B . C)

(A . (B . (C . NIL)))

((A . NIL) . C)

((A . NIL) . (B . (C . NIL)))

Rewrite the dot pair notation to list

(A . (B . (C . NIL)))

(A B C)

Rewrite the dot pair notation to list

((A . NIL) . (B . (C . NIL)))

((A) B C)

Rewrite the list to dot pair notation

(+ 1 2)

(+ . (1 . (2 . NIL)))