

Consider the following BNF grammar which describes lists:

```
<list> ::= "(" | "(" <sequence> ")"
<sequence> ::= <element> | <element> " " <sequence>
<element> ::= <integer> | <cons> | <concat> | <list>
<cons> ::= "(: " <integer> " " <list> ")"
<concat> ::= "(++ " <list> " " <list> ")"
<integer> ::= [0-9]+
```

The following are examples of lists:

```
(1 2 3)
(1 (2 3) 4 ())
(1 (++ (: 2 (3)) (4 5)) 6)
```

Your task is to:

- correctly parse such lists using JFlex
- given a correctly-defined list, write a procedure which evaluates lists operations in the standard way; for instance, `(1 (++ (: 2 (3)) (4 5)) 6)` evaluates to `(1 (2 3 4 5) 6)`