Problem 4.2.2.c page 206

S -> S (S) S | ε with string (()())

    a) S → S(S)S -> (S)S -> (S(S)S)S -> ((S)S)S -> (()S)S -> (()S(S)S)S -> (()(S)S)S -> (()()S)S -> (()())S -> (()())

    b) S → S(S)S -> S(S) -> S(S(S)S) -> S(S(S)) -> S(S()) -> S(S(S)S()) -> S(S(S)()) -> S(S()()) -> S(()()) -> (()())

    c)
```
                        S
                     / | | | \
                    S  ( S )  S
                (    (    )  (    )  )
```

    d) Ambiguous, because you can have multiple parses

    e) The set of all strings with parentheses.

Problem 4.2.3.a page 207

The set of all strings of 0s and Is such that every 0 is immediately followed

by at least one 1.

S -> (0?1)*

Problem 4.4.1.c Page 231

S -> S (S) S | ε

Left recursion elimination

S -> T

T -> (S) S T | ε

Nonterminals	(	)	$

S	S -> T	S -> T	S -> T
T	T -> (S) S T T -> ε	T -> ε	T -> ε