Mini Quiz 9

Name: _____

Kerberos: _____

Consider the following grammar:

```
P ::= [ E ] $
E ::= T | T, E
T ::= a
```

Q1: Left-factor the above grammar:

Q2: Name two ways of determining which production to try for a hand-coded recursive descent parser:

Consider the following grammar:

```
P ::= E ( C )
E ::= A B
A ::= a | ε
B ::= [ b ] | ε
C ::= c | ε
```

$T \in \text{First}(T)$
$\text{First}(S) \subseteq \text{First}(S\beta)$
NT derives ε implies $\text{First}(\beta) \subseteq \text{First}(NT\beta)$
NT derives Sβ implies $\text{First}(S\beta) \subseteq \text{First}(NT)$

Q3: What is First(P)?