CSC 345 Lab – First Follow and First+ Sets

Overview

Calculate first, follow, and first+ sets.

Problem 1

Calculate Follow(E)
Start Symbol: E

E → i + i

Problem 2

Calculate Follow(E), Follow(F)
Start Symbol: E

E → F + F
E → F - F
F → i

Problem 3

Calculate First(E), First(S), First(T), First(V)
Start Symbol: E

E → S,
S → T + S,
S → T,
T → V * T
T → V
V → 0,
V → 1

Problem 4

Calculate Follow(E), Follow(S), Follow(T), and Follow(V)
Start Symbol: E

E → S,
S → T + S
S → T
T → V * T
T → V
V → 0
V → 1

Problem 5

Calculate First+ for each production
Start Symbol: S

E → S,
S → T + S,
S → T,
T → V * T
T → V
V → 0,
V → 1

Problem 6

Calculate First+ for each production
Start Symbol: S

E → T Y
Y → + T Y
Y → λ
T → F Z
Z → * F Z
Z → λ
F → 0
F → 1