

Grammar

- 1 | goal \rightarrow expr
- 2 | expr \rightarrow term expr2
- 3 | expr2 \rightarrow + term expr2
- 4 | | - term expr2
- 5 | | ϵ
- 6 | term \rightarrow factor term2
- 7 | term2 \rightarrow * factor term2
- 8 | | / factor term2
- 9 | | ϵ
- 10| factor \rightarrow “(“ expr ”)”
- 11| | number (0,1,2,...,9)

FIRST & FOLLOW Sets

- 1. FIRST(1) = FIRST(2) = FIRST(6) = FIRST(10) \cup FIRST(11) = { number, “(“ }
- 2. FIRST(2) = FIRST(6) = FIRST(10) \cup FIRST(11) = { number, “(“ }
- 3. FIRST(3) = { + }
- 4. FIRST(4) = { - }
- 5. FIRST(5) = { ϵ }
- 6. FIRST(6) = FIRST(10) \cup FIRST(11) = { number, “(“ }
- 7. FIRST(7) = { * }
- 8. FIRST(8) = { / }
- 9. FIRST(9) = { ϵ }
- 10. FIRST(10) = { “(“ }
- 11. FIRST(11) = { number }

- 1. FOLLOW(goal) = { EOF }
- 2. FOLLOW(expr) = FOLLOW(goal) = { EOF, “)” }
- 3. FOLLOW(expr2) = FOLLOW(expr) = { EOF, “)” }
- 4. FOLLOW(term) = FIRST(expr2) = { +, -, ϵ } = { +, -, FOLLOW(expr) } = { +, -, EOF, “)” }
- 5. FOLLOW(term2) = FOLLOW(term) = { +, -, EOF, “)” }
- 6. FOLLOW(factor) = FIRST(term2) = { *, /, ϵ } = { *, /, FOLLOW(term) } = { *, /, +, -, EOF, “)” }

- 1. FIRST+(1) = FIRST(1) = { number, “(“ }
- 2. FIRST+(2) = FIRST(2) = { number, “(“ }
- 3. FIRST+(3) = FIRST(3) = { + }
- 4. FIRST+(4) = FIRST(4) = { - }

5. $\text{FIRST}^+(5) = \text{FIRST}(5) \cup \text{FOLLOW}(\text{expr2}) = \{ \epsilon, \text{EOF}, "(" \}$
6. $\text{FIRST}^+(6) = \text{FIRST}(6) = \{ \text{number}, "(" \}$
7. $\text{FIRST}^+(7) = \text{FIRST}(7) = \{ * \}$
8. $\text{FIRST}^+(8) = \text{FIRST}(8) = \{ / \}$
9. $\text{FIRST}^+(9) = \text{FIRST}(9) \cup \text{FOLLOW}(\text{term2}) = \{ \epsilon, +, -, \text{EOF}, "(" \}$
10. $\text{FIRST}^+(10) = \text{FIRST}(10) = \{ "(" \}$
11. $\text{FIRST}^+(11) = \text{FIRST}(11) = \{ \text{number} \}$

TABLE

	+, -	*, /	number, (EOF
expr	error	error	term expr2	error
expr2	term expr2	error	error	ϵ
term	error	error	factor term2	error
term2	ϵ	factor term2	error	ϵ
factor	error	error	expr)	error