



Compilers Project

1. Program \rightarrow Atoms | Lists
2. Atoms \rightarrow Atom Atoms' | ϵ
3. Atoms' \rightarrow Atom Atoms' | ϵ
4. Atom \rightarrow constants | string | Boolean | ϵ
5. Boolean \rightarrow t | nil
6. Lists \rightarrow List Lists' | ϵ
7. Lists' \rightarrow List Lists' | ϵ
8. List \rightarrow (Statement)
9. Statement \rightarrow Function Statement' | Dotimes | when | IF | ϵ
10. Statement' \rightarrow AtomsIdentifier | Lists
11. Dotimes \rightarrow dotimes (identifier constant) Lists
12. When \rightarrow when Conditional Lists
13. AtomsIdentifier \rightarrow Atoms AtomsIdentifier' | identifier AtomsIdentifier' | ϵ
14. AtomsIdentifier' \rightarrow Atoms AtomsIdentifier' | identifier AtomsIdentifier' | ϵ
15. Function \rightarrow Reservedword | Operator

- 16. Operator → Arithmeticop | Comparisonop | Logicalop
- 17. Arithmeticop → + | - | * | / | rem | mod | incf | decf
- 18. Comparisonop → = | < | > | < = | > =
- 19. Logicalop → and | or | not
- 20. Reservedword → write | read | setq | print
- 21. IF → if (Conditional) Lists
- 22. Setq → setq identifier Setq'
- 23. Setq' → IdorConst | Lists
- 24. Incf → incf identifier Incf'
- 25. Incf' → IdorConst | Lists | ϵ
- 26. Decf → decf identifier Decf'
- 27. Decf' → IdorConst | Lists | ϵ
- 28. Conditional → (Comparisonop IdorConst IdorConst) | Boolean | identifier
- 29. IdorConst → identifier | constant