

CSC 340: Programming Language and Compilation
Homework #2

First and Follow Sets

Due Date: Feb 25th Before 1:00 PM through LMS

Compute FIRST and FOLLOW sets for each of the following grammars.

1. $S \rightarrow 0S1 \mid 01$

2. $S \rightarrow S+S \mid SS \mid (S) \mid S^* \mid a$

3. $S \rightarrow SS+ \mid SS^* \mid a$

4. $S \rightarrow (L) \mid a$
 $L \rightarrow L, S \mid S$

5. $S \rightarrow Sx$
 $S \rightarrow S,y$
 $S \rightarrow y$

6. $S \rightarrow S(S)S$
 $E \rightarrow \epsilon$

7. $E \rightarrow TE'$
 $E' \rightarrow +TE' \mid \epsilon$
 $T \rightarrow FT'$
 $T' \rightarrow *FT' \mid \epsilon$
 $F \rightarrow (E) \mid id$