

## Assignment 2

i)  $S \rightarrow s C x L D y$

$$C \rightarrow c$$

$$L \rightarrow L ; I \mid I \rightarrow \text{Left recursion}$$

$$I \rightarrow i$$

$$D \rightarrow d \mid \epsilon$$

i.i)  $S \rightarrow s C x L D y$

$$C \rightarrow c$$

$$L \rightarrow I L'$$

$$L' \rightarrow ; I \mid \epsilon$$

$$I \rightarrow i$$

$$D \rightarrow d \mid \epsilon$$

} Eliminates left recursion  
and left factoring!

1.2)

	FIRST	FOLLOW	NULL
S	s	\$	x
C	c	x	x
L	i	d, y	x
L'	;	d, y	✓
I	i	;, d, y	x
D	d	y	✓

1.3)

	s	c	x	i	j	d	y
s	$s \rightarrow sCxLDy$						
c		$c \rightarrow c$					
L				$L \rightarrow IL'$			
L'					$L' \rightarrow jI$	$L' \rightarrow \epsilon$	$L' \rightarrow \epsilon$
I				$I \rightarrow i$			
D						$D \rightarrow d$	$D \rightarrow \epsilon$