

Homework #3
Bottom Up Parsing

#1. Using the standard (left recursive) expression grammar, identify the handles in the following:

- (a) $E + T * a$
- (b) $E + a * a$
- (c) $E + F * a$

#2. Create SLR(1) states and a parsing table for

$S \rightarrow a A S \mid b A$
 $A \rightarrow c A \mid d$

#3. Use your table in #2 to parse a c d b d

#4. Show that the grammar

$S \rightarrow b A c \mid A b \mid c c$
 $A \rightarrow c$

has an SLR(1) shift-reduce conflict

#5. Show that the grammar:

$S \rightarrow b A \mid A c \mid c$
 $A \rightarrow c$

has an SLR(1) reduce-reduce conflict