CS-581: Theory of Computation
HW #2

Due Date: Feb. 1, 2016. Bring hardcopy to class.

From the textbook (page 154 in 3ed of textbook):

2.6 (b)
(d)
2.7 (b)
(d)
2.9
2.13 (a)
(b)
2.15
2.19
2.28 (a)
(b)
(c)
2.30 (a)
(d)
2.31
2.33
2.35
2.46

Some of these problems may be very hard. Do what you are able to do.

All problems are the same in the second edition except problem 2.46, which is not present. It is this:

2.46 Consider the following CFG G:

$S \rightarrow SS \mid T$
$T \rightarrow \texttt{a}T\texttt{b} \mid \texttt{ab}$

Describe L(G) and show that G is ambiguous. Give an unambiguous grammar H where L(H) = L(G) and sketch a proof that H is unambiguous.