Today  HW03 due. Catch-up; mini-review of Ch. 0–4.
Next class  Midterm exam 1.

1. List the members of your group below. Underline your name.

2. Consider the the grammar $G_1$:

$$
E \rightarrow E + T \mid E - T \mid T
$$
$$
F \rightarrow (E) \mid i
$$
$$
T \rightarrow F \mid T/F \mid T*F
$$

For each of the following strings, either provide a leftmost derivation of the string from $S$ or explain why the string is not in $L(G_1)$: $i+i+i/i*i$; $i-ii*i$.

3. Is the grammar $G_1$ ambiguous? Are its parse trees consistent with the usual interpretation of arithmetic symbols and expressions? Justify your answers.

4. Convert the grammar $G_1$ of Question 2 to Chomsky normal form. Show intermediate grammars.
5. Provide informal and formal descriptions of a pushdown automaton that is equivalent to the grammar $G_1$ of Question 2.