

Friday, February 16

Name \_\_\_\_\_

Email \_\_\_\_\_

6.s081 Spring 2018

Miniquiz #6

5 Minutes

---

Consider the grammar:

1.  $E \rightarrow E + T \mid T$
2.  $T \rightarrow T * F \mid F$
3.  $F \rightarrow ( E ) \mid x$

What are the first 5 steps of a shift-reduce parser for  $(x * x) + x$ ?

*Note: We assume the parser wouldn't take a step that would lead to an invalid string*

- SHIFT (
- SHIFT  $x$
- REDUCE 3
- REDUCE 2
- SHIFT \*

What are the set of items generated by production 1?

- $E \rightarrow \cdot E + T$
- $E \rightarrow E \cdot + T$
- $E \rightarrow E + \cdot T$
- $E \rightarrow E + T \cdot$
- $E \rightarrow \cdot T$
- $E \rightarrow T \cdot$