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Homework 3

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# Problem 1

1.)

* Nullable: A, E
* Terminal: a, b, c, d, e
* Non-terminal: S, A, B, E

2.)

**Atg File:**

COMPILER S

CHARACTERS

TOKENS

a = 'a' .

b = 'b' .

c = 'c' .

d = 'd' .

e = 'e' .

COMMENTS FROM "//" TO '\n'

IGNORE '\r'+'\n'+'\t'

PRODUCTIONS

S = A b | B c .

A = a A c | E | .

B = b B | d .

E = e E | .

END S.

**Trace.txt Sets**

S

first: a b d e

follow: EOF

A

first: a e

follow: b c

B

first: b d

follow: c

E

first: e

follow: b c

1.3)

Computing Select sets based on First and Follow sets:

S

Select(S → A b) = {a, e, b}

A

Select(A → a A c) = {a}