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CS 252
TA #4

2.1 c) $E \to E + T \to E + T + T \to T + T + T \to$
$F + T + T \to F + F + T \to F + F + F \to a + F + F \to$
$a + a + F \to a + a + a$

d) $E \to T \to F \to (E) \to (T) \to (F) \to$
$((T)) \to ((F)) \to ((E)) \to$
$(((E))) \to (((F))) \to (((a)))$

2.4 b) S → 1A1 | 0A0
A → 0A|A0|1A|A1|ε

e) S → 1S1 | 0S0|A
A → 0|1|1|ε

2.14 A → BAB|B|ε → A₀ → A
B → 00|ε

A → BAB|B|ε
B → 00|ε

A₀ → A
A → BAB|B|AB|BA|ε
B → 00

A₀ → BAB|B|AB|BA|BB
A → BAB|B|AB|BA|A
B → 0
B₁ → 0

2.5 b) Starts and ends with either 1 or 0
e) Accepts string of 0s and 1's that are the
same string reading it forward and backward.

b)