Solutions to Day 25 in-class quiz

1. $(K \times (\Sigma \cup \{\varepsilon\}) \times \Gamma *) \times (K \times \Gamma *)$

2. $\{w \in \{a,b\}* : \#_a(w) = \#_b(w)$ and for every prefix x of w, $\#_a(w) \geq \#_b(w) \}$

   Another way to say it: Start with BAL, substitute a for (, b for)

3. Replace c; ε; ε by ε; ε; ε

   It *does not know* when to start popping. It is non-deterministic.

   When it gets to the end of the string, the stack is not empty.

   This was too complicated for such a short quiz; I gave full credit as

   long as you did not circle the empty string.