Known Context Free Languages

Here is a sampling of languages that are known Context Free, as discussed in class.

$\{ a^n b^n \}$

$\{ 0^m 1^n \mid m \neq n \}$

$\{ a^n c a^n \}$

$\{ w \in \{ a, b \}^* \mid$ in w, the number of a's = the number of b's $\}$

$\{ ww^R \mid w \in \{ a, b \}^* \}$

$\{ w \in \{ a, b \}^* \mid w = w^R \}$ (palindromes)

$\{ wcw^R \mid w \in \{ a, b \}^* \}$

The complement of $\{ ww \mid w \in \{ a, b \}^* \}$

$\{ a^i b^j c^k \mid i,j,k \geq 0, i=j$ or $i=k \}$

$\{ a^i b^j c^k \mid i,j,k \geq 0, i=j$ or $j=k \}$

$\{ a^i b^j c^k \mid i,j,k \geq 0, i=j$ or $i \neq k \}$

Strings over alphabet $\{ (,) \}$ of balanced parentheses

As well as variations on these languages where the only difference is substituting different alphabet symbols.