Let $F$ be a length-preserving pseudorandom function. For the following constructions of a keyed function $F': \{0,1\}^n \times \{0,1\}^{n-1} \rightarrow \{0,1\}^{2n}$, state whether $F'$ is a pseudorandom function. If yes, prove it; if not, show an attack.

1. $F'_k (x) := F_k (0||x)||F_k (x||1)$.

2. $F'_k (x) := F_k (0||x)||F_k (1||x)$. 