Judge JInverter I virtual A sample uniform $x \in \{0, 1\}^k$ y := f(x) $\triangleright y$ $\triangleright \widetilde{m}$ select \widetilde{m} unpack $\widetilde{m} =: b_1 ||b_2|| \dots ||b_k||$ for $i = 1 \dots k$ do sample $r_i^0 \in \{0, 1\}^k$ sample $r_i^1 \in \{0, 1\}^k$ compute $f_i^0 := f(r_i^0)$ compute $f_i^1 := f(r_i^1)$ sample $j \in |k|$ reassign $f_i^{1-b_j} := y$ $\widetilde{\sigma} := r_1^{b_1} \| r_2^{b_2} \| \dots \| r_k^{b_k}$ $pk := \begin{pmatrix} f_1^0 & f_2^0 & \cdots & f_k^0 \\ f_1^1 & f_2^1 & \cdots & f_k^1 \end{pmatrix}$ $\triangleright pk, \widetilde{\sigma}$ forge (m, σ) \blacktriangleright (m,σ) unpack $\sigma =: s_1 || s_2 || \dots || s_k$ $x' := s_i$ return $y \stackrel{?}{=} f(x')$