$\forall \theta, \forall \text{Dist}, \quad \text{Adv}^{\text{Dist}}(\text{Enc}(\theta), \text{Enc}(0^\lambda)) \le \text{negl}(\lambda)$

$\underset{\{0,1\}^\lambda}{\overset{\wedge}{}}$

$\Downarrow$

$\forall \theta, \theta', \quad \forall \text{Dist} \quad \text{Adv}^{\text{Dist}}(\text{Enc}(\theta), \text{Enc}(\theta')) \le \text{negl}(\lambda)$

To show this, take the contrapositive:

$\exists\, \theta, \theta', \text{Dist}. \quad \text{s.t.} \quad \text{Adv}^{\text{Dist}}(\text{Enc}(\theta), \text{Enc}(\theta')) \ge \eta$

η is non-negl.

Then, we want to argue that either

(I) $\text{Adv}^{\text{Dist}}(\text{Enc}(\theta), \text{Enc}(\theta')) \approx_{\text{negl}} \text{Adv}^{\text{Dist}}(\text{Enc}(0), \text{Enc}(\theta'))$

($\Rightarrow$ Dist also distinguishes Enc(0) & Enc(θ'))

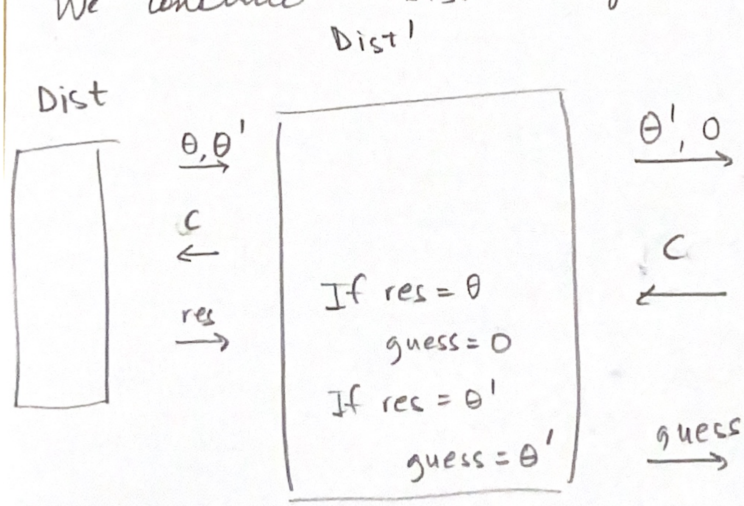
or

$\exists$ Dist' that distinguishes Enc(0), Enc(θ')

OR

(II) Same as (I) w/ θ & θ' swapped.

We construct Dist' as follows:



ℓ

claim: Dist' wins w/ non-negl prob (or its opposite guess does)