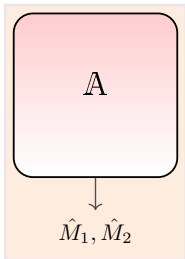


$$\text{Exp}_H^{\text{coll}}(\mathbb{A})$$



$$\text{Adv}_H^{\text{coll}}(\mathbb{A}) = \Pr \left[\hat{M}_1 \neq \hat{M}_2, \text{H}(\hat{M}_1) = \text{H}(\hat{M}_2) \right]$$