





**1** → **2** 

## **SETUP**

- Assume parameter set q, n, m, k. and "starting" code  $\mathscr{C}_0$
- Generate **secret key**  $A \in GL_m(q)$ ,  $B \in GL_n(q)$
- Generate **public key**  $\mathscr{C}_1 = A\mathscr{C}_0 B$

## COMMIT

- Generate **ephemeral**  $\tilde{A} \in \mathrm{GL}_{\mathrm{m}}(q)$ ,  $\tilde{B} \in \mathrm{GL}_{n}(q)$
- Generate **ephemeral code**  $\tilde{\mathscr{C}} = \tilde{A}\mathscr{C}_0\tilde{B}$

## **CHALLENGE**

• Pick a bit  $b \in \{0,1\}$ 

## **RESPONSE**

- if b=0, reply with  $(\tilde{A},\tilde{B})$
- if b = 1, reply with  $(\tilde{A} \cdot A^{-1}, B^{-1} \cdot \tilde{B})$

