au(1) $ au(2)$ $ au(3)$ $ au(4)$ $ au(5)$	00010100 00110010 10011011 11011110 00111011	Mult(00110010, 10011011)	
• • •	• • •		

Generic Group Model

[Shoup 97] — Random Labels

- $\triangleright \ \tau: \mathbb{Z}_p \to \mathbb{G} = \{0,1\}^m \text{ (random injection)}$ \triangleright Interpret $\tau(x)$ as g^x
- ▷ Oracles:

$exttt{Mult}(au(x), au(y))\coloneqq au(x+y),$ and $\operatorname{Inv}(\tau(x)) \coloneqq \tau(-x),$

