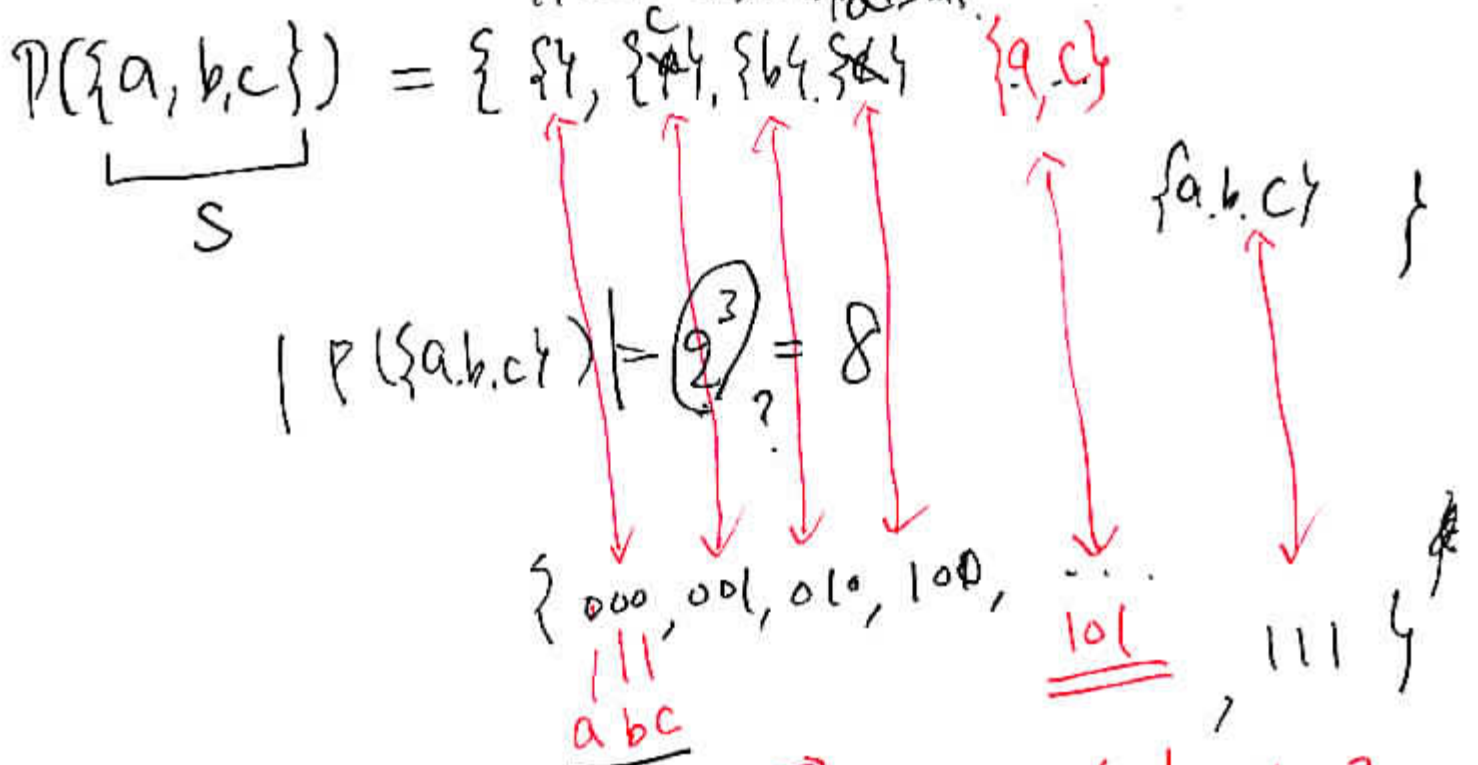


4/2 set Isomorphism



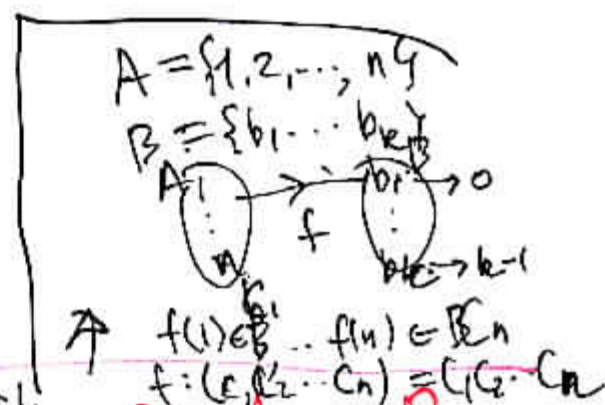
$|S| = 2^{|S|}$

binary string of length  $\frac{3}{|S|}$

$\mathbb{N} \rightarrow \mathbb{N}$  new 2

$S \rightarrow \mathbb{N} \rightarrow \mathbb{N}$  no order

set vs tuple  
 $\{a, b\} = \{b, a\}$   
 $(a, b) \neq (b, a)$



$R \subseteq A \times B \iff R: A \times B \rightarrow \{0, 1\}$

$|R| = \frac{|A \times B|}{2}$   
 $= \frac{|A| \times |B|}{2}$

$f: A \rightarrow B$   
 $|f| = |B|^{|A|}$   
 $|B|$  - any string of length  $|A|$

