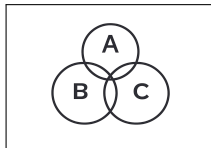
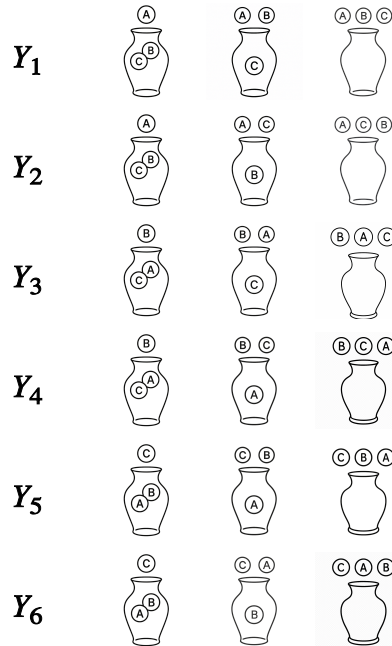
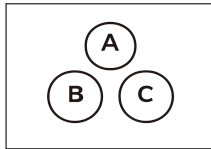


# 4

## Discrete Distribution Permutations

# H



$$N = \{A, B, C\}$$

$$|Y| = \bigoplus rP_k = \frac{r!}{(r-k)!}$$

$$|Y| = |N| \times (|N|-1) \times (|N|-2)$$

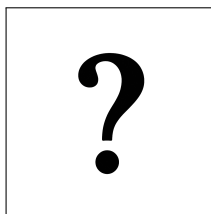
$$|Y| = 3 \times 2 \times 1 = 6$$

$$M = \{T, H\}$$

$$|X| = \bigoplus |M|^3$$

$$|X| = |M| \times |M| \times |M|$$

$$|X| = 2 \times 2 \times 2 = 8$$



$$N = \{A, B, C \dots Z\}$$

$$|Y| = rP_k = r! / (r-3)!$$

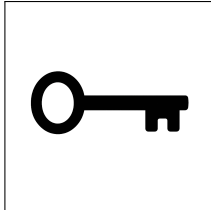
$$X = \bigoplus (N, 3)$$

$$|Z| = |X| + |Y| = ?$$

## 4

Discrete Distribution  
Permutations

## H



$$N = \{A, B, C \dots Z\}$$

$$|Y| = rPk = r! / (r - 3)!$$

$$X = \bigoplus (N, 3)$$

$$|Y| = rPk = |N|! / (|N| - 3)!$$

$$|Y| = |N|x(|N| - 1)x(|N| - 2) = 15,600$$

$$|X| = |N|^k$$

$$|X| = |N|x|N|x|N| = 17,576$$

$$|Z| = |X| + |Y| = 17,576 - 15,600 = 1,976$$