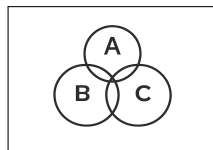
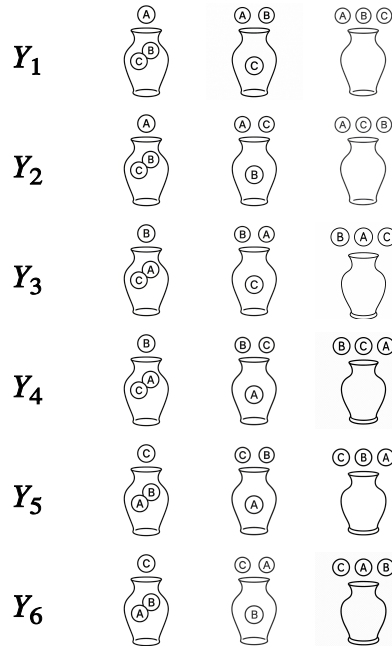
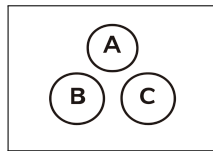


4

Discrete Distribution Permutations



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

$$|Y| = \sum_{k=0}^r rP_k = \frac{r!}{(r-k)!}$$

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

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

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

$$|X| = \sum_{k=0}^r |M|^k$$

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

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



$$A = \{1, 2, 3\} : B = \{1, 2\} : C = \{1, 2, 3, 4, 5, 6\}$$

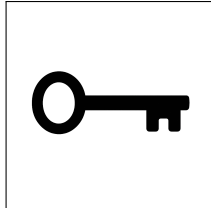
$$X = \sum_{k=0}^r (A, 1) : Y = \sum_{k=0}^r (B, 1) : Z = \sum_{k=0}^r (C, 1) :$$

$$|X| = |A| : |Y| = |B| : |Z| = |C|$$

$$|S| = |X| \times |Y| \times |Z| = ?$$

4

Discrete Distribution Permutations



$$A = \{1, 2, 3\} : B = \{1, 2\} : C = \{1, 2, 3, 4, 5, 6\}$$

$$X = \bigoplus (A, 1)$$

$$Y = \bigoplus (B, 1)$$

$$Z = \bigoplus (C, 1)$$

$$|X| = |A|$$

$$|Y| = |B|$$

$$|Z| = |C|$$

$$|S| = |X|x|Y|x|Z| = |A|x|B|x|C|$$

$$|S| = 3x2x6 = 36$$