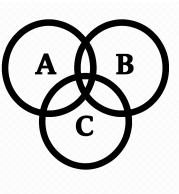
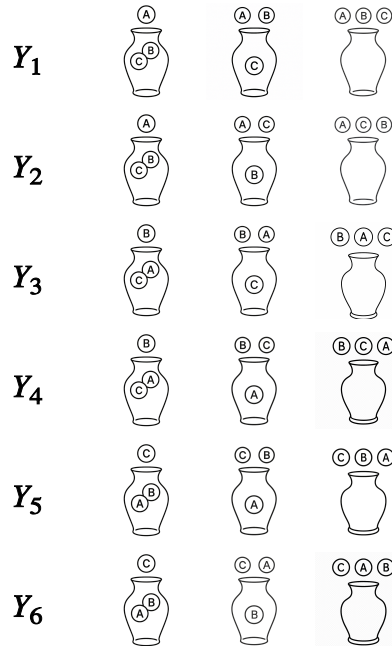
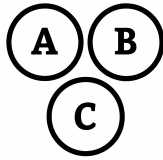




Permutations



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

$$|Y| = \text{Per}(N) = rP_k = \frac{r!}{(r-k)!}$$

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

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

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

$$|X| = \text{Per}(M) = |M|^3$$

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

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



$$S = \{1, 2, 3, 4, 5, 6\}$$

$$X = \text{Per}(S, 2)$$

$$|X| = ?$$



Permutations



$$S = \{1,2,3,4,5,6\}$$

$$X = \textcircled{\textcircled{S,2}}$$

$$|X| = |S| \times |S|$$

$$|X| = 6 \times 6 = 36$$