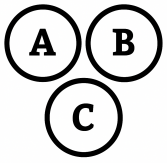
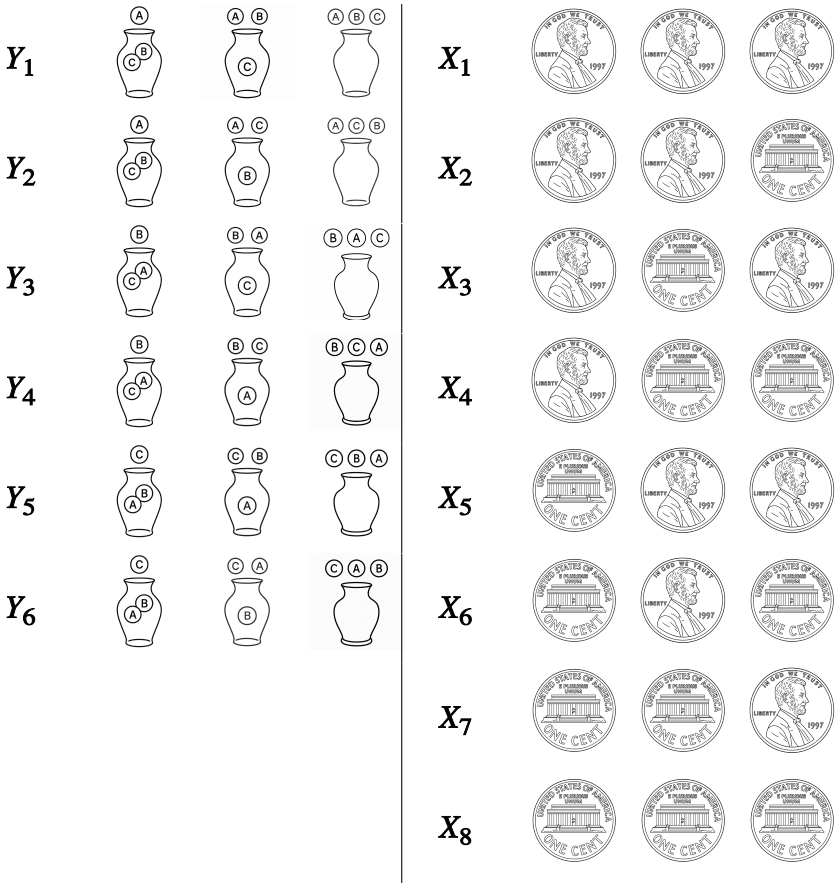
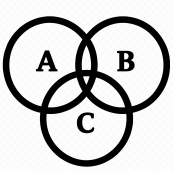
Permutations







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

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

|Y| = |N| x (|N|-1) x (|N|-2)

|Y| = 3 x 2 x 1 = 6

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

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

|X| = |M| x |M| x |M|

|X| = 2 x 2 x 2 = 8

?

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

$$X = \text{Permutation}(N,5)$$

$$|X| = rPk = |N|!/(|N| - 5)! = ?$$

K Permutations K

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

$X =$ **(N,5)**

$|X| = rPk = |N|!/(|N| - 5)!$

$|X| = |N|x(|N| - 1)x(|N| - 2)x(|N| - 3)x(|N| - 4) = |N|!$

$|X| = 6x5x4x3x2 = 720$