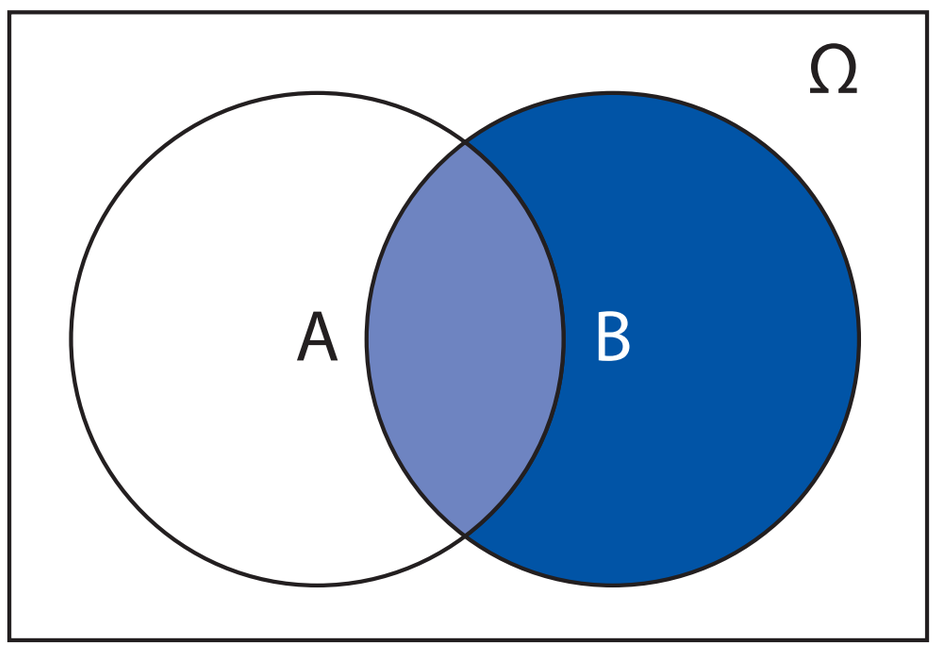
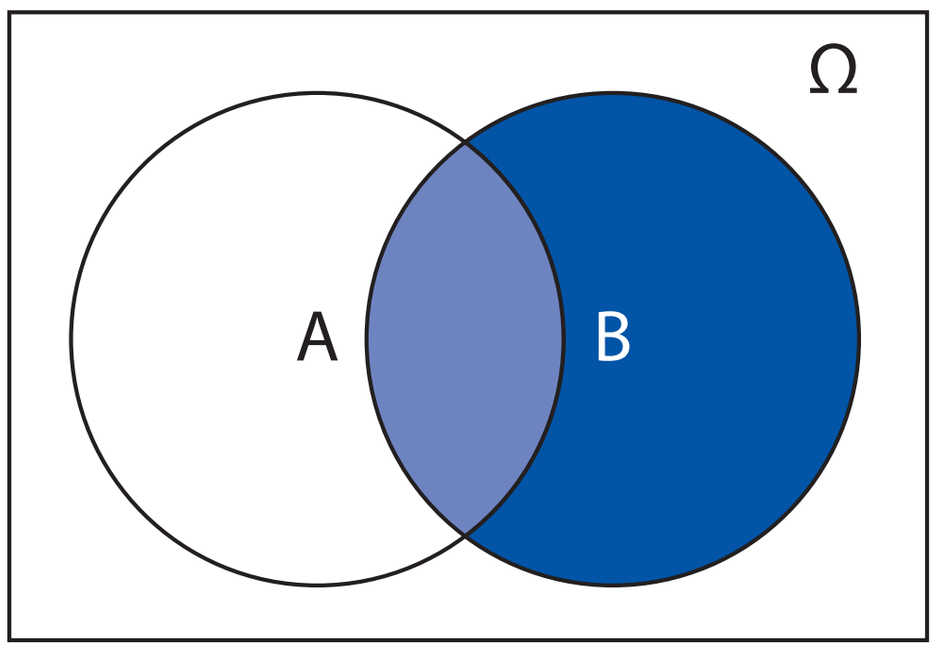
Example 1: Write Down Equivalence/Definition and Plug in Values

- Rolling a dice once
  - A: a multiple of 2; B: a multiple of 3
    - Ω =
    - as a set: A = B =
    - as a set: A^c = B^c =
    - P(A) = P(B) =
    - $P(A^c)$ = $P(B^c)$ =
    - P(A and B) =
    - P(A|B) =
    - P(B|A) =
    - P(A) = P(A and B) + P(A and B^c)



Example 2: Write Down Equivalence/Definition and Plug in Values

- Flipping coin 3 times
  - A: first flip head; B: second flip tail
    - Ω =
    - as a set: A = B =
    - as a set: A^c = B^c =
    - P(A) = P(B) =
    - $P(A^c)$ = $P(B^c)$ =
    - P(A and B) =
    - P(A|B) =
    - P(B|A) =
    - P(A) = P(A and B) + P(A and B^c)



Example 3: Permutations and Combinations

- You are a producer in a large entertainment company
  - You want to form a 5-member unit from IZ*ONE
    - Assume that you are selecting 5 completely at random
    - What is the chance that you select 1 JP member and 4 KR member?
    - What is the chance that you select at least 2 JP members?
- You are selecting 7 members to cover a BTS song
  - Each will be assigned to a different role (e.g. V, Jin, RM …)
    - How many potential scenarios are there?