# The algebra of events $\mathcal{F}$

- A *measurable set* (*event*): a subset of the sample space.
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    - Complements of events are events.
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*Notation and colloquial language*:

- Upper-case letters to denote events: $A, B, C, \ldots \subseteq \Omega$.
- An event $A$ *occurs* if the outcome $\omega$ of the chance experiment is in $A$.
- The sample space $\Omega$: *certain event*.
- The empty set $\varnothing$: *impossible event*.
- If $A$ and $B$ are disjoint events, $A \cap B = \varnothing$, say that $A$ and $B$ are *mutually exclusive*.
- $A \cup B$: union, *disjunction* of events.
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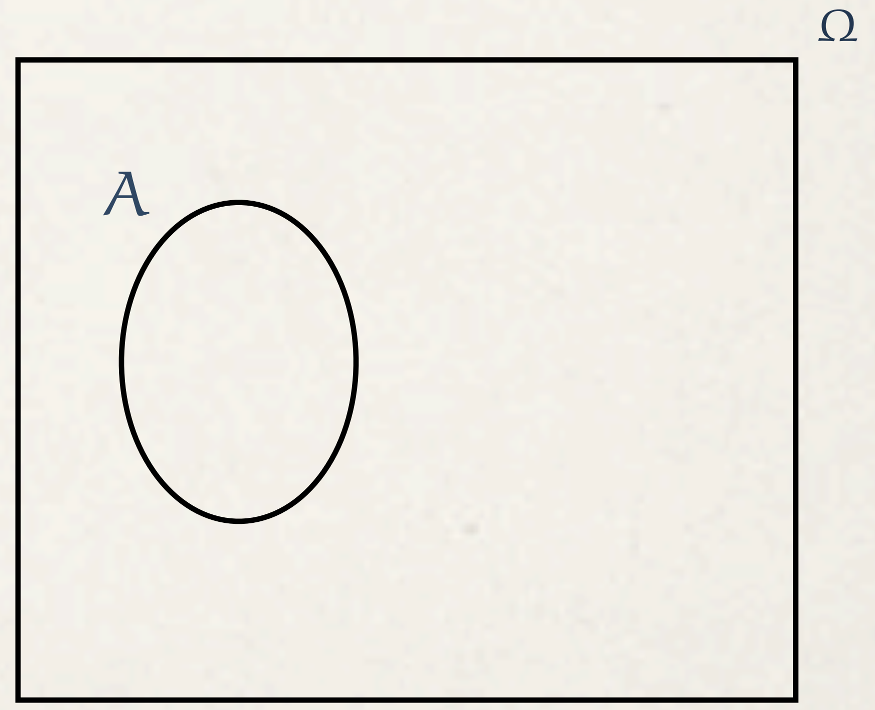

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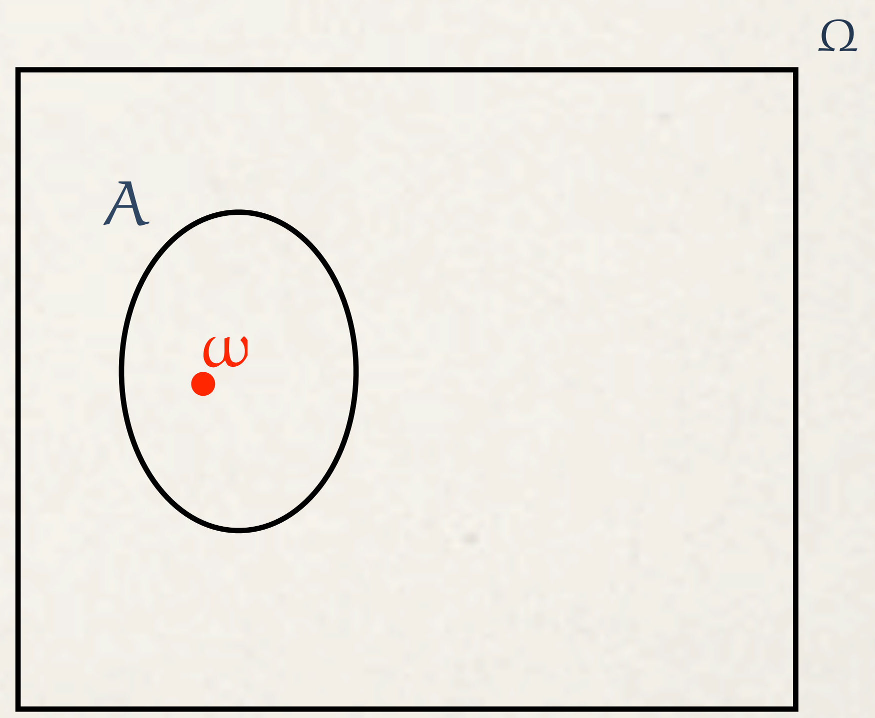

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