

Our definition of RVs (see last lecture) ensures that we can compute $\Pr\{X \in B\}$ for pretty much any set B we will encounter.

WHY? Since \mathcal{F} is closed under complements, $\{\omega: X(\omega) > \alpha\} \in \mathcal{F} \quad \forall \alpha \in \mathbb{R}$.
Since \mathcal{F} is c

