1. Let X be a *indicator random variable*. Then The E[X]=P(E), where X(w)=1 if .
2. For Bernoulli Random Variable X. Let p be the probability of a success (i.e. X=1). Then:
3. For a Binomial Random Variable W:
   * Var(W) = n\*p(1-p)
4. **Probability Mass Function:**
5. For continuous random variable X,Y:
   * Pdf of a joint distribution: