Lecture 1

Sample spaces

Statistic is the logic of uncertainty.

A **sample space** is the set of all possible outcomes of an experiment

An **event** is a subset of sample space

Naive definetion of probability

P(A) = #favorable outcome / #possible outcomes

Example: file coins

Assumes all outcome equally likely, finite sample space

Sampling table

choose k objects out of n

	order matter	**order doesn't**
replace	n^k	$\binom{n+k-1}{k}$
don't replace	n(n-1)...(n-k+1)	$\binom{n}{k}$