Exam 1, Topics 2.1-2.8, 3.1-3.4

- Sample space: find S, count number of outcomes
- Events: union, intersection, complements, Demorgan's law, mutually exclusive, independent
- Probability: $p(A \cup B)$, $p(A')$, $p(B|A)$, $p(A \cap B)$, total probability rule, bayes' theorem

Exam 1: Continued

- Counting techniques: Multiplication rule, permutation, combination, sample with or without replacement
- Probability distribution of r.v. X
- CDF of r.v. X
- E(X) and V[X]

Topics: 3.5-3.9:

Discrete probability distributions:

discrete uniform, bernoulli, binomial, geometric, negative binomial, hypergeometric, possion distributions.

Understand the experiement that these distributions applied to, know pmf, $E(X), var(X)$, apply these distribution to solve the probability problems.