

Concepts to know for Exam 3

This exam covers ch 7 and 8.1-8.4

- sample space
 - uniform/not uniform
- Probability using
 - Venn diagrams
 - Trees
 - tables
 - counting techniques
 - formulas
- Conditional probability
 - Reduced sample space
 - Formula
 - Backwards tree
- Independent Events
 - Test for independence: Two events, A and B, are independent if $P(A \cap B) = P(A)P(B)$
 - Using the concept of independence
- Random variables
 - Finite Discrete
 - Infinite Discrete
 - Continuous
 - Probability distribution
- Histogram
- Mean, Median, Mode, Variance, Standard Deviation
- Expected Value
- Fair game
- Odds
 - in favor of E
 - against E
- Probability from Odds
- Chebychev's inequality(theorem)
- Bernoulli Trials (Binomial Distribution)
 - mean, standard deviation
 - expected value
 - n, p, q, r
- All probability and counting methods.
- Any additional topic discussed in class.