Chapter 12 Basic Probability Rules

Legitimate Probability assignments. $0 \le P(A) \le 1$ for all A

$P(S) = 1$ for S

$P(A^c) = 1 - P(A)$

A + B are Disjoint then $P(A \text{ or } B) = P(A) + P(B)$

A + B are Independent then $P(A \text{ and } B) = P(A)\,P(B)$

p. 334-338: 19, 20, 27, 28, 39, 40, 43, 44, 45

Chapter 13: General Probability Rules

General Addition Rule $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$

p. 356-361: 15-20

General Multiplication Rule $P(A \text{ and } B) = P(A) \times P(B|A)$

Tree diagram problems 47-54

Conditional probabilities $P(A|B) = \frac{P(A \text{ and } B)}{P(B)}$ 21, 22, 25, 26, 29, 30, 31, 32

what is independent and what is disjoint.
or mutually exclusive.

Chapter 14a: Random Variables

Expected Value (No Standard Deviation)

p. 387-392: 1, 2, 15, 16, 19, 20, 29a, 30a, 39

Chapter 14b: Binomial Distribution

Use Binompdf for individual values

Use Binomcdf for summing up several values

$\mu = np$ & $\sigma = \sqrt{npq}$

Notes & MyStatLab problems.