

## Test 3 Review

### 11.7 Events Involving And; Conditional Probabilities

If events are independent <sup>replacement</sup>  $P(A \text{ and } B) = P(A) \cdot P(B)$

If events are not independent <sup>not replacement</sup>  $P(A \text{ and } B) = P(A) \cdot P(B|A)$

Conditional probabilities:  $P(A|B) = \frac{P(A \text{ and } B)}{P(B)}$  or  $\frac{\text{Number in } A \text{ and } B}{\text{Number in } B}$

p. 656-658: 1-26, 33-72    p. 668-671: 79-99, 105, 106

### 11.8 Expected Value

$$E = \sum x_i P(x_i) \\ = x_1 P(x_1) + x_2 P(x_2) + \dots + x_n P(x_n)$$

$x$	$P(x)$	$x \cdot P(x)$
		$\vdots$

p. 664-665: 1-4    p. 671: 107 & 108

12.1: Sampling, Frequency Distributions, Histogram, Frequency Polygon, and Stem & Leaf Plot    p. 683-685: 7-31

12.2: Mean, Median, Midrange, & Modes

Mean -  $\bar{x} = \frac{\sum x}{n}$ , median is the score in the middle of arranged list.

Midrange -  $\frac{\text{Highest} + \text{Lowest}}{2}$ , mode is the number that appears the most.

p. 696-698: 1-54, 55, 57