

Statistics 1: Elementary Statistics

Section 5-2

Discrete Probability Distributions

- Quantitative data
- Discrete values
- List of outcomes together with their respective probabilities
- Counts are most common

Discrete Probability Distributions

- Rules
 - Probabilities sum to 1
 - Each probability is between 0 and 1, inclusive

Examples of Discrete Distributions

- EXCEL spreadsheet

Useful Formulas

- Mean
- Variance
- Standard Deviation

Useful Formulas

- Mean

$$m = \sum x \cdot P(x)$$

Useful Formulas

- Variance

$$s^2 = \sum (x - m)^2 \cdot P(x)$$

Useful Formulas

- Standard Deviation

$$s = \sqrt{s^2}$$

$$s = \sqrt{\sum (x - m)^2 \cdot P(x)}$$

Examples Using Useful Formulas

- Mean
- Variance
- Standard Deviation

Examples Using Useful Formulas

- **EXCEL**
