

# More Probability

STA 220 – Lecture #6

# Basic Probability Definition

- Probability of an event
  - Calculated by dividing number of ways an event can occur by number of total possible outcomes

$$P(event) = \frac{\# \text{ of ways}}{\text{total \# of}}$$

# Independence

- Two events  $A$  and  $B$  are **independent** if knowing that one occurs the probability that the other occurs.
  - Example: Suppose event  $A$  is the event that you toss a penny and it comes up heads and event  $B$  is the event that you toss a nickel and it also comes up heads