**11.4 Conditional Probability**  
Objective: To find conditional probabilities

To use tables and tree diagrams to determine conditional probabilities

**Contingency Table:** a frequency table that contains data from two different categories used to help with conditional probability

**Conditional Probability:** The probability of event B, given that event A will happen  
  
  
Conditional Probability:

For any two events A and B with P(A)  
  
***P(B[A) =***

Example:

A utility company asked 50 of its customers whether they pay their bills online or by mail. What is the probability that a customer pays the bill online, given that the customer is male?

Bill Payments

**The probability that a customer pays online given that the customer is male is 60%.**

Could we find the probability of customer paying by mail given that she is a female?

**HMWK: page 700 #1-5, 9-17 (odd)**