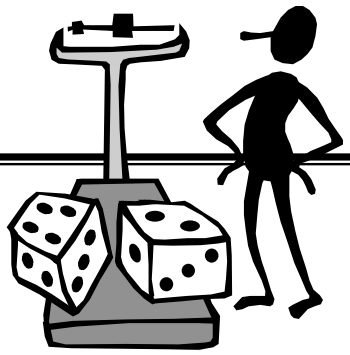
Chapter 15: Probability Rules!



Key Vocabulary:

- trial
- outcome
- event
- sample space
- disjoint
- mutually exclusive
- independent
- conditional probability
- tree diagram

1. If events A and B are *disjoint*, then $P(A \cup B) = P(A) + P(B)$. If events A and B are NOT *disjoint*, explain why this formula does not work.

2. In general (whether events are *disjoint* or not), what is the formula for finding $P(A \cup B)$?

3. Explain the difference between the *Addition Rule* for *disjoint events* and the *General Addition Rule*.

4. What is meant by *joint probability*?

5. What is meant by *conditional probability*?

6. State the formula for finding *conditional probability*.

7. Is the probability of "A given B" the same as the probability of "B given A?" Explain.

8. In general (whether events are *independent* or not), what is the formula for finding $P(A \cap B)$?

9. Explain the difference between the *Multiplication Rule* for *independent events* and the *General Multiplication Rule*.

10. State the formula used to determine whether or not two events are *independent*.