

**Single-stage Experiment**

**Multistage Experiment**

**Probability Trees**

Examples

Tree diagrams and products of probabilities

Example C—how to simplify your tree diagram

**Independent Events**

Probability of Independent Events (A and B)—Multiplication Property

Example D

Other ideas

**Dependent Events**

Example G

Probability of Dependent Events (A and B)

**Complementary Events**

Example H

**Expected Value**

Example J

**Permutations and Combinations**

Example M (tile arrangements)

**n factorial!**

Example N

**Permutation Theorem**

Example O

Example P (sets of tiles)

Order matters vs. order does not matter

**Combination Theorem**

Example Q

Examples