Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Flipping Coins:

1. **P( H and H)** Probability of obtaining two heads in a row
2. **P (Tails and Tails)** Probability of obtaining two tails in a row
3. **P (Heads, Heads, Heads, Heads**) Probability of four heads in row

Rolling Dice

1. **P( 5 and 6 )** Probability of rolling a five and a six consecutively
2. **P (Odd and Odd)** Probability of rolling two odd numbers
3. **P(5, 5, 5)** Probability of rolling a 5, three times in a row
4. Bag A contains 9 red marbles and 3 green marbles. Bag B contains 9 black marbles and 6 orange marbles. Find the probability of selecting one green marble from bag A and one black marble from bag B.
5. If you draw two cards from a standard deck of 52 cards without replacement, find:
   1. P(King first, Jack second)

* 1. P(face card first, ace second)

* 1. P(2 aces)

1. A box contains 5 purple marbles, 3 green marbles and 2 orange marbles. Two consecutive draws are made from the box without replacement of the first draw. Find the probability of each event.
   1. P(orange first, green second)
   2. P(both marbles are purple)

* 1. P(the first marble is purple, and the second is ANY color EXCEPT purple)

Bonus Question

In a bag there are 2 red marbles, 3 white marbles and 5 blue marbles. Once a marble is selected, it IS replaced. Find the following probabilities:

a. P(white, blue)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. P(white, white)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. P(blue, white, red)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. P(blue, blue, blue)

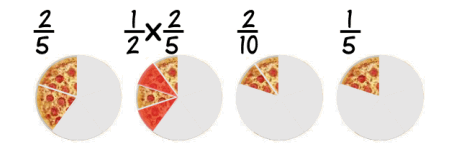
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**Probability Notes**

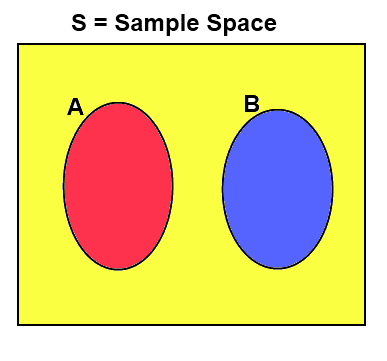
**Multiplying Fractions**

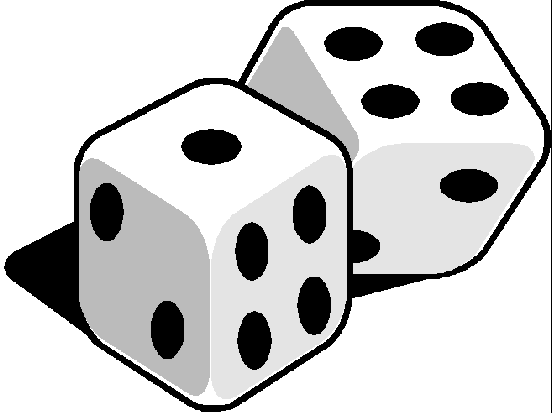
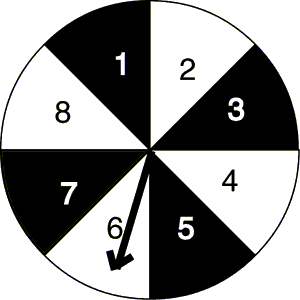
When multiplying fractions,

1. Multiply the numerators
2. Multiply the denominators,
3. Reduce if needed



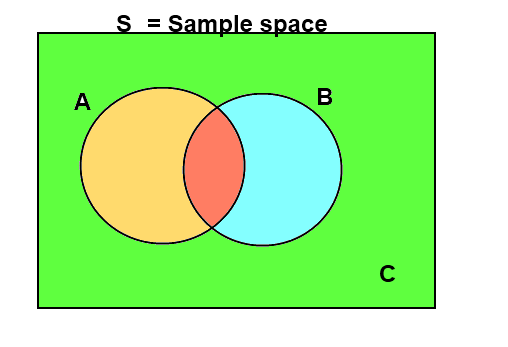
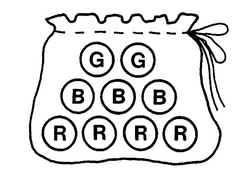
**Independent Events**



**“With Replacement” “Is replaced”**

**Dependent Events**

**“Without replacement” “Is not replaced”**