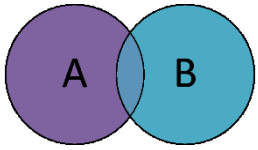
Algebra 2

8-05 Probability of Disjoint and Overlapping Events

Compound Event

- _____ event with _____ acceptable outcomes
- There may be some intersections where _____ condition satisfies _____ events so the events are _____
- If there is no intersection, then they are _____ or _____



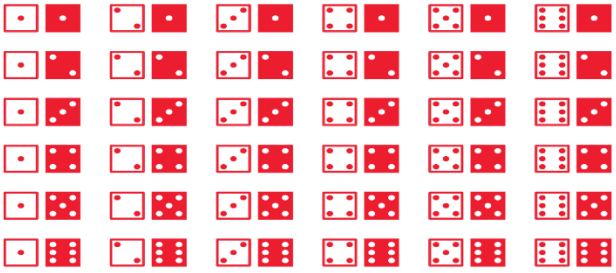
$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$

Disjoint or mutually exclusive

$$P(A \text{ and } B) = 0$$

One D6 is rolled. What is the probability of rolling a multiple of 3 or 5?

Two D6 are rolled. What is the probability of rolling a sum that is a multiple of 2 or 3?



A bag contains twenty cards, numbered 1 through 20. A card is randomly selected. What is the probability that the number is a multiple of 3 *or* a multiple of 4?

Out of 45 customers at a breakfast café, 42 customers bought either coffee or orange juice. There were 30 customers who bought orange juice and 40 customers who bought coffee. What is the probability that a randomly selected customer bought both coffee and orange juice?

A medical association estimates that 10.9% of the people in the United States have a thyroid disorder. A medical lab develops a simple diagnostic test for the disorder that is 96% accurate for people who have the disorder and 99% accurate for people who do not have it. The medical lab gives the test to a randomly selected person. What is the probability that the diagnosis is correct?

437 #1-30 odd = 15