## Compound Events Vocabulary

| Compound Events | combines two or more outcomes/events, using the word "and" or the word "or" | Symbolically |
| :---: | :---: | :---: |
| Mutually Exclusive | one event with a choice of outcomes that have nothing in common | $\begin{aligned} & P(A \text { or } B) \\ & =P(A)+P(B) \end{aligned}$ |
| Inclusive / Overlapping | one event with a choice of outcomes that have something in common | $\begin{aligned} & P(A \text { or } B) \\ & =P(A)+P(B)-P(A \text { and } B) \end{aligned}$ |
| Independent | two events when the outcome of one event has no effect on the outcome of the other | $\begin{aligned} & P(A \text { and } B) \\ & =P(A) * P(B) \end{aligned}$ |
| Dependent | two events when the outcome of one event affects the outcome of the other | $\begin{aligned} & P(A \text { and } B) \\ & =P(A) * P(B \mid A) \end{aligned}$ |
| Conditional <br> Probability | the probability that event $B$ will occur given that event $A$ has occurred | $P(B \mid A)$ |

