

Key Probability Formulas

$$\textcircled{*} P(A \text{ or } B) = \boxed{} + \boxed{}$$

\uparrow $P(A)$ \uparrow $P(B)$

IF A, B "mutually exclusive"

$$\textcircled{*} P(A \text{ or } B) = \boxed{} + \boxed{} - \boxed{}$$

\uparrow $P(A)$ \uparrow $P(B)$ \uparrow $P(A \text{ and } B)$

$$\textcircled{*} P(A \text{ and } B) = \boxed{} \cdot \boxed{}$$

\uparrow $P(A)$ \uparrow $P(B)$

IF A, B independant

CONDITIONAL PROBABILITY

$$\textcircled{I} P(A|B) = \frac{\boxed{} \leftarrow P(A \text{ and } B)}{\boxed{} \leftarrow P(B)}$$

$$\textcircled{II} P(A \text{ and } B) = \boxed{} \cdot \boxed{}$$

\uparrow $P(A|B)$ \uparrow $P(B)$

Complement

$$P(A^c) = 1 - \boxed{}$$

\uparrow $P(A)$