Examples Suggest Two More Rules
P(A∩B) and   P(A∪B)

R6. **The probability of two events A and B that have common intersection,**

$$P(A \text{ and } B) = \frac{n\,(A \cap B)}{n(S)}$$

R7. **If two events, A & B, are not mutually exclusive, then**

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