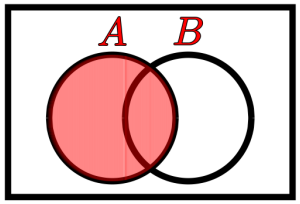
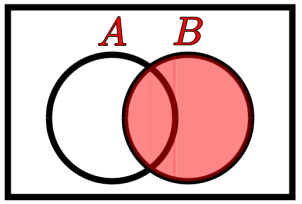
Probability Formulas

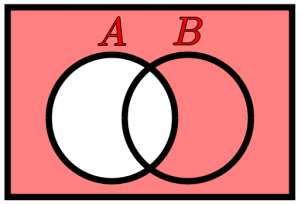
Ace Tutors



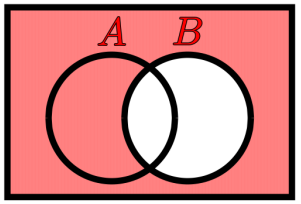
$P(A)$



$P(B)$

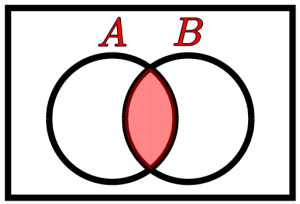


$P(A)^c$



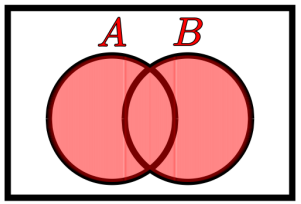
$P(B)^c$

Intersection



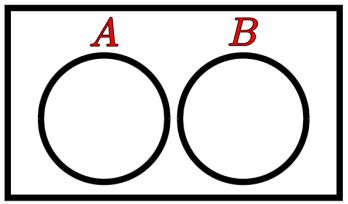
$P(A \cap B)$

Union



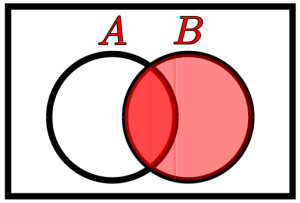
$P(A \cup B) = P(A) + P(B) - P(A \cap B)$

Mutually Exclusive



$P(A \cap B) = 0$

Conditional



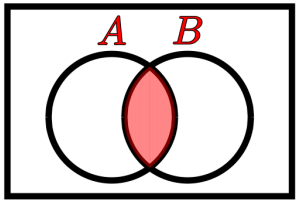
$$P(A|B) = \frac{P(A \cap B)}{P(B)}$$

Bayes' Theorem

$$P(A|B) = \frac{P(B|A) \cdot P(A)}{P(B)}$$

$$P(B|A) = \frac{P(A|B) \cdot P(B)}{P(A)}$$

Independent



$$P(A \cap B) = P(A) \cdot P(B)$$

$$P(A|B) = P(A)$$