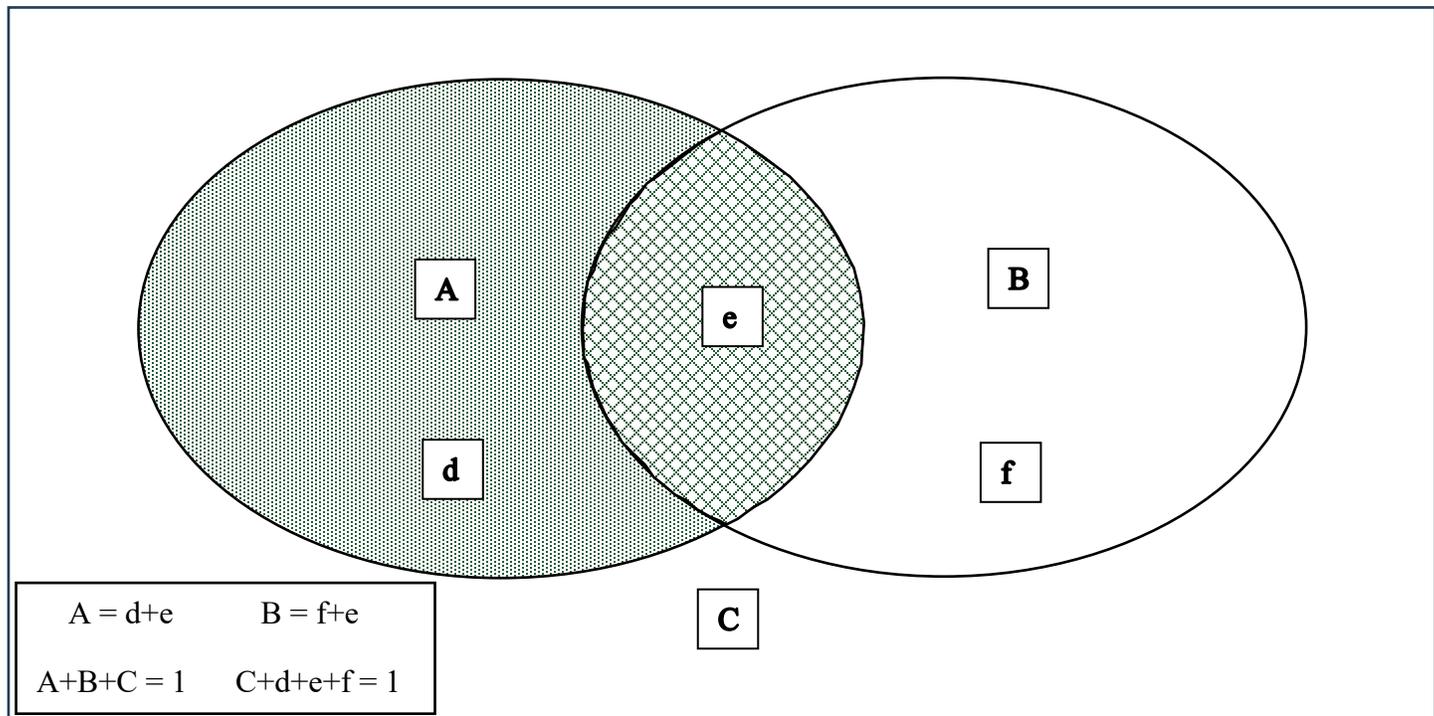


Probability and the Venn Diagram

This document will go over probability notation and the structure of a Venn diagram.

Venn Diagram



Probability Table

Simple Probabilities	Unions	Intersections	Conditional
$P(A) = \frac{d+e}{c+d+e+f}$	$P(A \cup B) = \frac{d+e+f}{c+d+e+f}$	$P(A \cap B) = \frac{e}{c+d+e+f}$	$P(A B) = \frac{e}{e+f}$
$P(\bar{A}) = \frac{c+f}{c+d+e+f}$	$P(\overline{A \cup B}) = \frac{c}{c+d+e+f}$	$P(\overline{A \cap B}) = \frac{c+d+f}{c+d+e+f}$	$P(\bar{B} \bar{A}) = \frac{c}{c+f}$
$P(B) = \frac{e+f}{c+d+e+f}$	$P(\bar{A} \cup B) = \frac{c+e+f}{c+d+e+f}$	$P(\bar{A} \cap B) = \frac{f}{c+d+e+f}$	$P(B \bar{A}) = \frac{f}{c+f}$
$P(\bar{B}) = \frac{c+d}{c+d+e+f}$	$P(\bar{A} \cup \bar{B}) = \frac{c+d+f}{c+d+e+f}$	$P(\bar{A} \cap \bar{B}) = \frac{c}{c+d+e+f}$	$P(\bar{B} A) = \frac{d}{d+e}$