

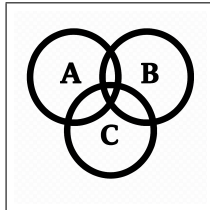
F

Conditional Probabilities

F



$$\begin{aligned}H &= 60 \\U &= 100 \\P(M \cap H) &= 0.10 \\P(H) &= 60/100 = 0.60 \\P(M|H) &= ?\end{aligned}$$



$$\begin{aligned}H &= 60 \\U &= 100 \\P(M \cap H) &= 0.10 \\P(H) &= 60/100 = 0.60 \\P(M|H) &= P(M \cap H)/P(H) = 0.10/0.60 = 1/6 \approx 0.17\end{aligned}$$



$$\begin{aligned}P(L) &= 0.40 \\P(C) &= 0.60 \\P(S|L) &= 0.30 \\P(S|C) &= 0.75 \\P(S) &= ?\end{aligned}$$

F

Conditional Probabilities

F

$$P(L) = 0.40$$

$$P(C) = 0.60$$

$$P(S|L) = 0.30$$

$$P(S|C) = 0.75$$

$$P(S) = P(S|L)P(L) + P(S|C)P(C)$$

$$P(S) = (0.30)(0.40) + (0.75)(0.60)$$

$$P(S) = 0.12 + 0.45 = 0.57$$