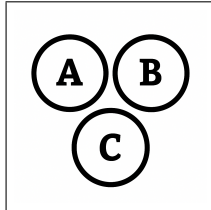
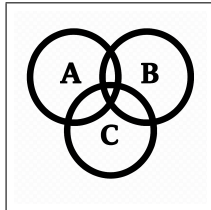


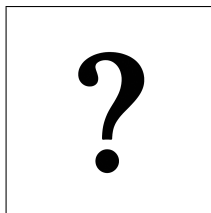
G Conditional Probabilities G



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

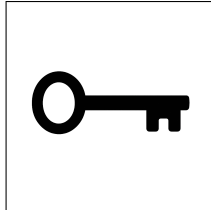


$$\begin{aligned}H &= 60 \\U &= 100 \\P(M \cap H) &= 0.10 \\P(H) &= 60/100 = 0.60 \\P(M|H) &= P(M \cap H)/P(H) = 0.10/0.60 = 1/6 \approx 0.17\end{aligned}$$



$$\begin{aligned}P(A) &= 0.8 \\P(B) &= 0.6 \\P(A \cup B) &= 0.9 \\P(B|A) &= ?\end{aligned}$$

G Conditional Probabilities G



$$\begin{aligned}P(A) &= 0.8 \\P(B) &= 0.6 \\P(A \cup B) &= 0.9 \\P(B|A) &= ?\end{aligned}$$

$$\begin{aligned}P(A \cup B) &= P(A) + P(B) - P(A \cap B) \\0.9 &= 0.8 + 0.6 - P(A \cap B) \\P(A \cap B) &= 0.8 + 0.6 - 0.9 = 0.5\end{aligned}$$

$$P(B | A) = \frac{P(A \cap B)}{P(A)} = \frac{0.5}{0.8} = 0.625$$