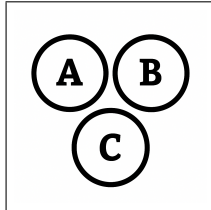
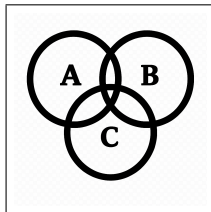


# B Conditional Probabilities B

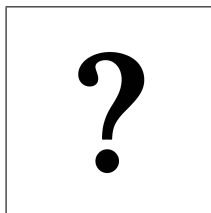
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$$\begin{aligned}H &= 60 \\U &= 100 \\P(M \cap H) &= 0.10 \\P(H) &= 60/100 = 0.60 \\P(M|H) &= ?\end{aligned}$$



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



$$\begin{aligned}M &= 60 \\F &= 40 \\W &= 31 \\(M \cup F) &= 100 \\(M \cap W) &= 19 \\(F \cap W) &= 12 \\P(M|W) &= ?\end{aligned}$$

# B

## Conditional Probabilities

# B



$$M = 60$$

$$F = 40$$

$$W = 31$$

$$(M \cup F) = 100$$

$$(M \cap W) = 19$$

$$(F \cap W) = 12$$

$$P(M|W) = \frac{P(M \cap W)}{P(W)} = \frac{19/100}{31/100} = \frac{19}{31} \approx 0.61$$