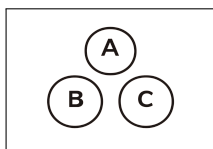


9

Discrete Distribution
Conditional Probabilities

B



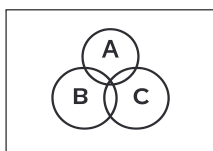
$$H = 60$$

$$U = 100$$

$$P(M \cap H) = 0.10$$

$$P(H) = 60/100 = 0.60$$

$$P(M|H) = ?$$



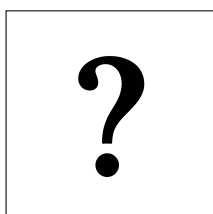
$$H = 60$$

$$U = 100$$

$$P(M \cap H) = 0.10$$

$$P(H) = 60/100 = 0.60$$

$$P(M|H) = P(M \cap H)/P(H) = 0.10/0.60 = 1/6 \approx 0.17$$



$$M = 60$$

$$F = 40$$

$$W = 31$$

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

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

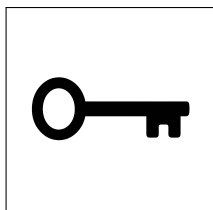
$$(F \cap W) = 12$$

$$P(M|W) = ?$$

9

Discrete Distribution
Conditional Probabilities

B



$$M = 60$$

$$F = 40$$

$$W = 31$$

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

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

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

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