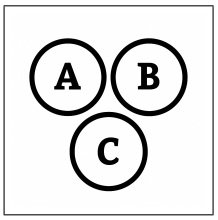
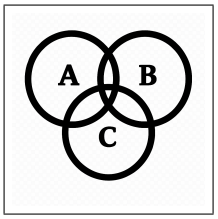
E Independant Events E



$P(A) = 0.40$

$P(B) = 0.70$

$(A, B) =$ 👍



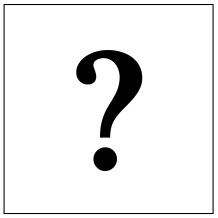
$(A, B) \rightarrow P(A|B) = P(A)$

$(A, B) \rightarrow P(A \cap B) = P(A) \times P(B)$

$(A, B) \rightarrow P(A \cup B) = P(A) + P(B) - P(A) \times P(B)$

$(A, B) \rightarrow P(A \cup B) = 0.40 + 0.70 - 0.40 \times 0.70$

$(A, B) \rightarrow P(A \cup B) = 0.82$



$P(C) = 0.30$

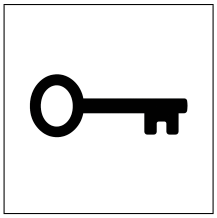
$P(A|C) = 0.20$

$P(A|C^c) = 0.60$

$(A, B) =$ 👍

$P(C \cup A) = ?$

E Independant Events E



$P(C^c) = 1 - 0.30 = 0.70$

$P(A) = P(A|C)P(C) + P(A|C^c)P(C^c) = 0.20 \times 0.30 + 0.60 \times 0.70 = 0.06 + 0.42 = 0.48$

$P(C \cup A) = P(C) + P(A) - P(C \cap A) = P(C \cup A) = 0.30 + 0.48 - 0.06 = 0.72$