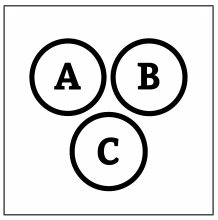
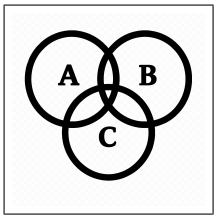
F Independant Events F



$P(A) = 0.40$

$P(B) = 0.70$

$(A, B) =$ 👍



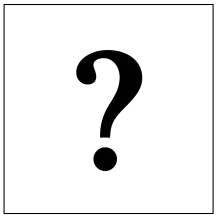
$(A, B) \rightarrow P(A|B) = P(A)$

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

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

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

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



$P(A) = 0.1$

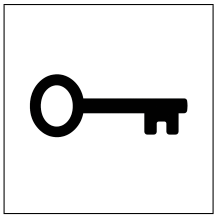
$P(B) = 0.3$

$P(C) = 0.4$

$(A, B, C) =$ 👍

$P(A \cup B^c \cup C^c) = ?$

F Independant Events F



$P(B^c) = 1 - P(B) = 0.7$
$P(C^c) = 1 - P(C) = 0.6$

$P(A \cup B^c \cup C^c) = 1 - P(A^c \cap B \cap C)$
$P(A^c \cap B \cap C) = P(A^c) \cdot P(B) \cdot P(C) = (1 - 0.1) \cdot 0.3 \cdot 0.4 = 0.9 \cdot 0.3 \cdot 0.4 = 0.108$
$P(A \cup B^c \cup C^c) = 1 - 0.108 = 0.89$