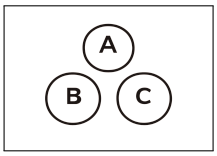
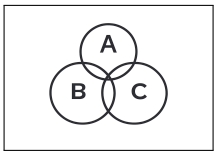
7 Discrete Distribution Complementary Event C



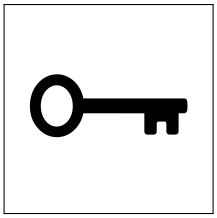
$S = \{1, 2, 3, 4, 5, 6, 7, 8\}$
$A = \{1, 2\}$



$P(A) = |A|/|S| = 2/8 = 0.25$
$P(A^C) = 1 - P(A) = 0.75$

$P(A) = 4/52$
$P(D) = 13/52$
$P(A \cap D) = 1/52 \neq 0.00$
$P(A \cup D) = ?$

7 Discrete Distribution Complementary Event C



$P(A) = 4/52$
$P(D) = 13/52$
$P(A \cap D) = 1/52 \neq 0.00$
$P(A \cup D) = P(A) + P(D) - P(A \cap D)$
$P(A \cup D) = 4/52 + 13/52 - 1/52 = 16/52 = 4/13$