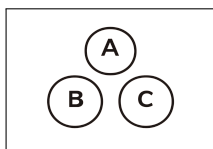


7

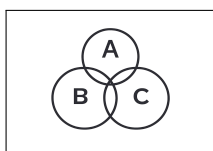
Discrete Distribution
Complementary Event

H



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

$$A = \{1, 2\}$$



$$P(A) = |A|/|S| = 2/8 = 0.25$$

$$P(A^C) = 1 - P(A) = 0.75$$



$$P(G) = 0.28$$

$$P(B) = 0.29$$

$$P(S) = 0.19$$

$$P(G \cap B) = 0.14$$

$$P(B \cap S) = 0.12$$

$$P(G \cap S) = 0.10$$

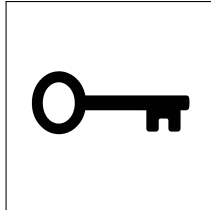
$$P(G \cap B \cap S) = 0.08$$

$$P((G \cup B \cup S)^C) = ?$$

7

Discrete Distribution
Complementary Event

H



$$P(G) = 0.28$$

$$P(B) = 0.29$$

$$P(S) = 0.19$$

$$P(G \cap B) = 0.14$$

$$P(B \cap S) = 0.12$$

$$P(G \cap S) = 0.10$$

$$P(G \cap B \cap S) = 0.08$$

$$P((G \cup B \cup S)^C) = ?$$

$$P(G \cup B \cup S) = P(G) + P(B) + P(S) - P(G \cap B) - P(G \cap S) - P(B \cap S) + P(G \cap B \cap S)$$

$$P(G \cup B \cup S) = 0.28 + 0.29 + 0.19 - 0.14 - 0.10 - 0.12 + 0.08 = 0.48$$

$$P((G \cup B \cup S)^C) = 1 - P(G \cup B \cup S) = 1 - 0.48 = 0.52$$