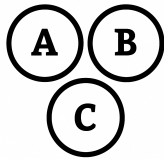


# G

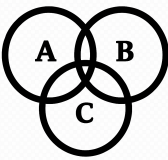
## Complementary Event

# G



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

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



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

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

?

$$P(A) = 0.80$$

$$P(B) = 0.90$$

$$P(A \cap B) = 0.00 \rightarrow ?$$

# G

## Complementary Event

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# G



$$P(A) = 0.80$$

$$P(B) = 0.90$$

$$P(A \cap B) = P(A) + P(B) - P(A \cup B) = 0.80 + 0.90 - 0.00 = 1.70 \geq 1.00 \rightarrow P(A \cap B) \neq 0.00$$