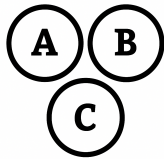
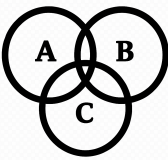


# Complementary Event



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

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



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

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



$$P(L) = 0.40$$

$$P(R) = 0.30$$

$$P((L \cup R)^C) = 0.35$$

$$P(L \cap R) = ?$$

## Complementary Event



$$P(L) = 0.40$$

$$P(R) = 0.30$$

$$P((L \cup R)^C) = 0.35$$

$$P(L \cap R) = ?$$

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$$P(L \cup R) = 1 - P((L \cup R)^C)$$

$$P(L \cup R) = 1.00 - 0.35 = 0.65$$

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$$P(L \cap R) = P(L) + P(R) - P(L \cup R) = 0.40 + 0.30 - 0.65 = 0.05$$