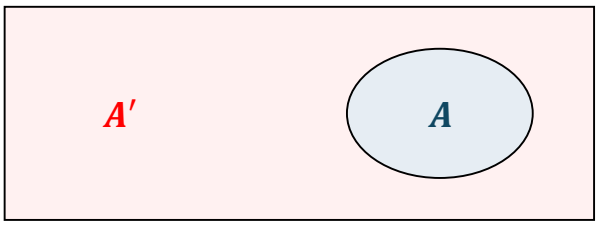
TOPIC: COMPLEMENTS

Complementary Events

◆ All outcomes where an event A does **NOT** occur is the **complement** of A (written as ____, ____ or ____).

- The total probability of ALL possible events is *ALWAYS* _____.

Rolling a Six-Sided Die



$$P(A) + P(A') = \_\_\_$$

New

$$P(A') = \_\_\_\_\_$$

EXAMPLE

(A) When rolling a six-sided die, probability that you will roll a 4?

What is the probability that you will NOT roll a 4?

Recall

$$P(event) = \frac{\#\ of\ outcomes\ with\ event}{\#\ of\ TOTAL\ outcomes}$$

(B) When drawing a single card from a standard deck of 52, what it the probability that you will NOT draw a queen?

PRACTICE

When drawing a marble out of a bag of red, green, and yellow marbles 8 times, a red or yellow marble is drawn 6 times. What is the probability of drawing a green marble?

PRACTICE

A weatherman states that the probability that it will rain tomorrow is 10%, or 0.1, & the probability that it will snow is 25%, or 0.25. What is the probability that it will not rain or snow?