

# Binomial Distribution

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1 Based on

2 Binomial Distribution

## "Understanding Statistics in the Behavioral Sciences" R. R. Pagano

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# Binomial Distribution

- a probability distribution that results when the following five conditions are met
  - ① there are a series of  $N$  trials
  - ② on each trial, there are only two possible outcomes
  - ③ on each trial, the two possible outcomes are mutually exclusive
  - ④ there is independence between the outcomes of each trial
  - ⑤ the probability of each possible outcome on any trial stays the same from trial to trial
  - ⑥ when these requirements are met, the binomial distribution tells us each possible outcome of the  $N$  trials and the probability of getting each of these outcomes.

