Bernoulli distribution

The Bernoulli distribution is a probability distribution. It takes a value of 1 with probability p and a value of 0 with probability 1-p. It is sometimes written as $\mathrm{Ber}(p)$.[1] It is used in probability theory and statistics. It is named after a Swiss scientist Jacob Bernoulli.

Overview

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A Bernoulli distribution is useful because it can be used to approximate the outcomes of an experiment (such as tossing a coin) as a range of percentages. It represents a "yes or no" type experiment. If the experiment succeeds, then it is given the value 1. If the experiment does not succeed, it is given value 0.[2] This can be used, for example, in tossing a coin, where "1" means it lands on "heads", and "0" means it lands on "tails" (or the other way around).[3]

This distribution has only one parameter, the probability of a success (p). In fact, Bernoulli distribution is the binomial distribution with n=1, and n independent and identically distributed Bernoulli distributions also give rise to binomial distribution.

Related pages

[change | change source]

- Poisson distribution

References

[change | change source]

1. ↑ "List of Probability and Statistics Symbols". *Math Vault*. 2020-04-26. Retrieved 2020-09-12.
2. ↑ "Special Distributions | Bernoulli Distribution | Geometric Distribution | Binomial Distribution | Pascal Distribution | Poisson Distribution". *www.probabilitycourse.com*. Retrieved 2020-09-12.
3. ↑ Weisstein, Eric W. "Bernoulli Distribution". *mathworld.wolfram.com*. Retrieved 2020-09-12.

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