https://en.wikipedia.org/wiki/Null_hypothesis

Null hypothesis

In inferential statistics, the **null hypothesis** (often denoted H_0,[1]) is a general statement or default position that there is no relationship between two phenomena or no difference between two phenomena.[2][3][4]

Testing (accepting, approving, rejecting, or disproving) the null hypothesis — and thus concluding that there are (or are not) grounds for believing that there *is* a relationship between two phenomena or a difference between two phenomena — is a central task in the modern practice of science.

The field of statistics, more specifically hypothesis testing, gives precise criteria for rejecting or accepting a null hypothesis within a confidence level.[4]

In classical statistical reasoning, the null hypothesis is assumed to be true until evidence indicates otherwise (similar to the case that a defendant of a jury trial is presumed innocent until guilty).[4]