

Lecture note in mathematics and statistics:

Auditing CC, LR:

CC = Confidence Coefficient, which is the probability, $P(\text{True values}) = \text{True Values} / \text{Total Values}$

LR = Level of Risk is $(1-p)$, which is $1 - \text{Confidence Coefficient}$.

If you find 10 True values out of 100, then

$$\text{CC} = 10/100 = 10\%$$

$$\text{LR} = 1 - \text{CC} = 1 - 10\% = 90\%$$

Another example:

Generally speaking, in math, the p-value is the probability that the null hypothesis is true. $(1 - \text{the p-value})$ is the probability that the alternative hypothesis is true [*].

For example, the null hypothesis might state that the average weight of chocolate bars produced by a chocolate factory in Slough is 35g (as is printed on the wrapper), while the alternative hypothesis might state that the average weight of the chocolate bars is in fact lower than 35g.

[*] Shehadeh, H. A. (2025). Bermuda Triangle Optimizer (BTO): A Novel Metaheuristic Method for Global Optimization. Int. J. Advance Soft Compu. Appl, 17(2).