Why

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Definition

The entropy of a distribution is the expectation of the negative logarithm of the distribution under the distribution.

Notation

Let A be a finite set. Let $p : A \to \mathbf{R}$ be a distribution. The entropy of p is

$$-\sum_{a \in A} p(a) \log(p(a)).$$

We denote the entropy of p by $H(p)$.

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[1]This will be included in a future edition.