



Odds

Odds are ratios of probabilities.

We can define odds in favour of an event (odds on) or odds against an event (odds against).

Odds can be expressed as a ratio of the probability an event will happen divided by the probability an event won't happen:

$$\text{Odds in favour of A} = \frac{p(A)}{1-p(A)}$$

Example:

The occurrence probability of a certain event is 0.80.

The odds in favour are $0.80/0.20 = 4/1 = 4$ to $1 = 4 : 1$.

The odds against are $1/4 = 1 : 4$.

Betting odds are written in the form $4 : 1$ ("4 to 1").