

May 30, 2019

Statistical Information Theory

$$H(W) = -\log_2(1/25) = \log_2(25)$$

Where W is the complete process of weighting.

However in contrast to the previous problem, each separate weighting may have three outcomes: the right pan goes down, the left pan goes down, and both pans come to the equilibrium. Thus, each weighting gives $\log_2 3$ bits of information. When the set W consist of m weighting, we have

$$m \log_2 3 \geq \log_2 25$$

Consequently

$$m$$