

$$GenomeSize = \sum_{i=1}^n Function_i \quad \leftarrow$$

$$Count = Sample_i \quad \textcolor{red}{1}$$

$$GeneRatio = \frac{Sample_i}{Function_i} \quad \textcolor{red}{2}$$

$$EnrichFactor = \frac{Sample_i}{SampleSize} / \frac{Function_i}{GenomeSize} \quad \textcolor{red}{3}$$

**Hypergeometric Test** 4

$$p = \frac{\binom{SampleSize}{Sample_i} \binom{GenomeSize - SampleSize}{Function_i - Sample_i}}{\binom{GenomeSize}{Function_i}}$$

$$HT = -\log_{10}(p)$$

**Fisher's Exact Test** 5

<i>SampleSize</i>	<i>GenomeSize</i>
<i>SampleSize – Sample<sub>i</sub></i>	<i>GenomeSize – Function<sub>i</sub></i>

$$SampleSize = \sum_{i=1}^n Sample_i \quad \leftarrow$$

