

## Number System

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### Abstract

We use numbers in daily life without examining a pattern in numbers [1]. We solve problems through equations everyday without generalizing our results [2]. This happens because we do not express numbers simply enough to get a sense of the numbers. In other words, numbers are not expressed in terms of their occurrences to understand the numbers and express them in the same form. This paper expresses numbers in the form of their occurrences.

### Number system

**Probability** gives the chance of **occurrence** of a particular event [3]. Numbers could be seen as events. For example, we see 1 vehicle on the road. Other events are we see 2,3 and 4 vehicles on the road. Thus, the chance of 1 vehicle on the road is given by 0.25. Among the 4 events, the chance of 1 vehicle on the road is given by 0.25 or  $\frac{1}{4}$  (0.25 for every event). Thus, 1 vehicle or 1 could be expressed as 0.25. Here we expressed 1 as 0.25. Therefore, numbers could be seen as **events (occurrences)** and could be expressed as **probability** of those occurrences.

### References

1. Trivedi, N. Patterns.
2. Trivedi, N. (2012, July). Indian Academy of Sciences technical report. Indian Academy of Sciences.
3. Bertsekas, D., & Tsitsiklis, J. N. (2008). *Introduction to probability* (Vol. 1). Athena Scientific.