

Mean Value

1. Introduction

- Mean value is number which tells us around which number are values of some variable grouped.
- Mean values is also called arithmetic average or middle value.
- Mean value is calculated like this:

$$E(x) = \bar{x} = \frac{1}{N} \sum_{i=1}^N x_i \quad (1.1)$$

where: $E(x)$, \bar{x} – mean value of variable x ,
 N – number of values of x for which mean value is calculated,
 x_i – value of variable x taken at i -th measurement.

- For instance if we had recorded following values for variable x :

$$x_i \in \{3, 4, -5, 5, 2, 6\} \quad , \quad N=6$$

then mean value \bar{x} would be:

$$\bar{x} = \frac{1}{N} (3 + 4 - 5 + 5 + 2 + 6) = \frac{1}{6} 15 = 2.5$$

- This example can be graphicly explained like this:

