## The Mean: Takeaways 🖻

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## **Syntax**

• Computing the mean of any numerical array:

```
### Pure Python ###
mean = sum(array) / len(array)

### Using numpy ###
from numpy import mean
mean_numpy = mean(array)
```

• Computing the mean of a **Series** :

```
mean = Series.mean()
```

## Concepts

- We can summarize the distribution of a numerical variable by computing its **mean**.
- The mean is a single value and is the result of taking into account **equally** each value in the distribution.
- The mean is **the balance point** of a distribution the total distance of the values below the mean is equal to the total distance of the values above the mean.
- The mean of a population can be defined algebraically in several equivalent ways:

• The mean of a sample can be defined algebraically in several equivalent ways:

 $\bullet\,$  The sample mean  $\,$  is an unbiased estimator for the population mean  $\,$  .

## Resources

- The Wikipedia entry on the mean.
- Useful documentation:
  - numpy.mean()
  - <u>Series.mean()</u>



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