

# 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:

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

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- The sample mean  $\bar{x}$  is an unbiased estimator for the population mean  $\mu$ .

## Resources

- [The Wikipedia entry](#) on the mean.
- Useful documentation:
  - [numpy.mean\(\)](#)
  - [Series.mean\(\)](#)



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