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**mode**

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syntax: `mode(data)`

purpose: Calculate the most frequent value in a vector. If two or more values occur with the same frequency, the smaller value is used. Missing values (indicated with `NaN`) are excluded.

examples: Suppose we have the data set

```
>> data = [1 2 3 4 NaN NaN NaN NaN 1 2];
```

The values 1 and 2 each occur twice. There are 4 instances of missing data.

```
>> mode(data) ⇒ ans: 1
```

Using `mode` generally makes sense only when the vector is composed from a set of discrete values, for example 1 to 10. The mode of a set of continuous numbers is generally meaningless, as typically there is only one of each value. In this case, the mode will typically be the same as the minimum (because of the way in which `mode` breaks ties). To show this, we'll generate some random numbers from a continuous distribution:

```
>> data = uniform(1000,0,1);
```

```
>> mode(data) ⇒ ans: 0.014
```

```
>> min(data) ⇒ ans: 0.014
```

warning: `mode` works only for numerical data. If your data are stored as character strings, you must convert them to numbers. For example, `gender = ['M' 'F' 'F' 'F' 'M']` must be converted to something like `gender = [0 1 1 1 0]`

see also: `MEAN` and `MEDIAN` usually make more sense than `mode` for continuous data.

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This document is an excerpt from

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