

### 0.1 inf and NaN

`inf` represents infinity and `inf` is distinct from `-inf`. `inf` can be constructed in a number of ways, for example `exp(710)`.

`nan` stands for ***Not a Number***, and nans are created whenever a function produces a result that cannot be clearly evaluated to produce a number or infinity. For example, `inf/-inf` results in `nan`. nans often cause problems since most mathematical operations involving a `nan` produce a `nan`.

```
>>> x = nan
>>> 1.0 + x
nan
>>> 1.0 * x
nan
>>> 0.0 * x
nan
>>> mean(x)
nan
```