

## Numpy Cheat Sheet

### Numbers

<code>zeros (tuple)</code>	Generates an array of zeros, the dimensions are given by <i>tuple</i> .
<code>ones (tuple)</code>	Generates an array filled with 1, the dimensions are given by <i>tuple</i> .

### np.random.\*

<code>random (tuple)</code>	Uniformly samples numbers from [0, 1] into an array of size <i>tuple</i> .
<code>random (*tuple)</code>	Samples values from a Gaussian distribution with <i>mean</i> 0 and <i>variance</i> 1 into an array of size <i>tuple</i> . <b>Note:</b> Each dimension is a separate argument.

### Instance methods of np.array

<code>mean()</code>	Mean
<code>var()</code>	Variance

### Matrices

<code>np.diag (list)</code>	Generates a matrix with the diagonal <i>list</i> and zeros elsewhere.
<code>np.diag (matrix)</code>	Extracts the diagonal of the given <i>matrix</i> or two-dimensional array.