

Some MATLAB Built-in Functions

Function	Description
<code>sqrt(x)</code>	Square root of x
<code>nthroot(x,n)</code>	n th root of x
<code>abs(x)</code>	Absolute value of x
<code>exp(x)</code>	Exponential (e^x)
<code>log(x)</code>	Natural logarithm (Base e logarithm) of x
<code>log10(x)</code>	Base 10 logarithm of x
<code>factorial(x)</code>	The factorial of x
<code>rem(x,y)</code>	The remainder after x is divided by y
<code>max(A)</code>	If A is a vector, returns the largest value in A . If A is a matrix, returns a vector in which each element is the largest number in the corresponding column of A .
<code>min(A)</code>	If A is a vector, returns the smallest value in A . If A is a matrix, returns a vector in which each element is the smallest number in the corresponding column of A .
<code>sum(A)</code>	If A is a vector, returns the sum of the elements in A . If A is a matrix, returns a vector in which each element is the sum of the values in the corresponding column of A .
<code>mean(A)</code>	If A is a vector, returns the mean value of the elements in A . If A is a matrix, returns a vector in which each element is the average of the values in the corresponding column of A .
<code>median(A)</code>	If A is a vector, returns the median value of elements in A . If A is a matrix, returns a vector in which each element is the median value of the corresponding column of A .
<code>corrcoef(x,y)</code>	Returns a 2×2 matrix where the values at positions (1,2) and (2,1) are the Pearson's correlation coefficient between two vectors x and y .
<code>Corrcoef(X)</code>	where X is a matrix containing k columns. It returns a $k \times k$ matrix where values at positions (i, j) and (j, i) are the Pearson's correlation coefficient between i th and j th columns of X .
<code>sort(A)</code>	If A is a vector, output the elements in A in value ascending order. If A is a matrix, sort each column of A in value ascending order.
<code>sortrows(A,col)</code>	Sort the whole rows in matrix A according to the values in the column indicated by <code>col</code> in value-ascending order (or in value-descending order if <code>-col</code> is used).
<code>length(A)</code>	If A is a vector, returns the number of elements in A . If A is a matrix, returns the larger of its number of rows and columns.
<code>size(A)</code>	Returns a row vector $[m,n]$, where m is the number of rows in A and n is the number of columns in A .
<code>sin(x)</code>	Sine of angle x (x in radians)
<code>sind(x)</code>	Sine of angle x (x in degrees)
<code>cos(x)</code>	Cosine of an angle x (x in radians)
<code>cosd(x)</code>	Cosine of an angle x (x in degrees)

<code>tan(x)</code>	Tangent of angle x (x in radians)
<code>tand(x)</code>	Tangent of angle x (x in degrees)
<code>round(x)</code>	Round x to the nearest integer
<code>ceil(x)</code>	Round x towards infinity. (Round x to the nearest integer greater than or equal to x)
<code>floor(x)</code>	Round x towards negative infinity. (Round x to the nearest integer less than or equal to x)