**setsize**

*Setting dimension of matrix or vector.*

**Syntax:**

**setsize**(*n*, *X*);

**setsize**(*n*, *m*, *Y*);

**Arguments:**

*Х* – input array or matrix.

*Y* – input matrix.

*n* – quantity of elements or strings of resultant vector or matrix,

*m* – quantity of columns of resultant matrix.

**Description:**

*setsize(n, X)* – establishes quantity of elements of array or matrix as *n* of elements or strings, accordingly.

*setsize(n, m, X)* – establishes quantity of strings and columns of matrix as *n* and *m,* accordingly.

Old data get saved, zero values get established to new data. If the dimension being established is less than original, the data are cut off.

Input array *X* can be assigned:

* as variable of array type determined earlier:

**setsize**(*n*, *X*);

* as array consisting of variables determined earlier:

**setsize**(*n*, [*x1,x2,x3,x4*]);

Input matrix *Y* can be assigned:

* as variable of matrix type determined earlier:

**setsize**(*n*, *m*, *Y*);

* as matrix consisting of variables determined earlier:

**setsize**(*n*, *m*, [[*x1,x2*],[*x3,x4*],[*x5,x6*]]);

**Example 1:**

*Setting new dimension of vector*

|  |  |
| --- | --- |
|  | X = [1,2,3];  **setsize**(10, X); // [1,2,3,0,0,0,0,0,0,0] |

As a result, elements of array *X* will be assigned values [1,2,3,0,0,0,0,0,0,0].

**Example 2:**

*Setting new quantity of strings in matrix*

|  |  |
| --- | --- |
|  | X = [[1,2],[3,4]];  **setsize**(5, X); // [[1,2],[3,4],[0,0],[0,0],[0,0]] |

As a result, variable *X* will be assigned values of array [[1,2],[3,4],[0,0],[0,0],[0,0]].

**Example 3:**

*Setting new quantity of strings and columns in matrix*

|  |  |
| --- | --- |
|  | Y = [[1]];  **setsize**(2,3, Y); //[[1 , 0 , 0],[0 , 0 , 0]] |

As a result, variable *Y* will be assigned values of array [[1 , 0 , 0],[0 , 0 , 0]].