**sum**

*Function of summing up elements of real or complex vector.*

**Syntax:**

*s* = **sum**(*X*);

**Arguments:**

*X* – input array of vector elements.

**Description:**

*sum(X)* – function returns value of sum of all the vector elements. Vector elements can be both real and complex.

Input array *X* can be assigned:

* as variable of array type determined earlier:

*s* = **sum**(*X*);

* as array consisting of variables determined earlier:

*s* = **sum**([*x1,x2,x3,x4*]);

* as constant array:

*s* = **sum**([1,2,3]);

**Result:**

*s* – value of sum of all elements of vector *X.*

**Example:**

|  |  |
| --- | --- |
|  | **const** X = [2, 2, 1, 3, 4];  s = **sum**(X); //12 |

As a result, variable *s* shall be assigned value 12 equal to the sum of all elements of array *X*.