**linspace**

*Function of calculating vector of arithmetic progression.*

**Syntax:**

**Y = linspace***(xmin* ,*xmax*, *n);*

**Arguments:**

хmin – minimum value of arithmetic progression,

*xmax* – maximum value of arithmetic progression,

*n* – dimensionality of vector of arithmetic progression.

**Description:**

*linspace(xmin ,xmax, n)* – function of calculating vector of arithmetic progression from value *xmin* to value *xmax*. Dimensionality of vector is determined by parameter *n*.

**Result:**

*Y* – output array comprising values of vector of arithmetic progression.

**Example:**

|  |  |
| --- | --- |
|  | **const** n=81;  **output** x[n];  minimum = 20.0;  maximum = 260.0;  x = **linspace**(minimum, maximum, n); |

As a result, elements of array *Х* will be assigned values [20, 23, 26,…, 257, 260] corresponding to arithmetic progression values, dimensionality of array – 81 element.

An exact value of obtained array *Х* = [20 , 23 , 26 , 29 , 32 , 35 , 38 , 41 , 44 , 47 , 50 , 53 , 56 , 59 , 62 , 65 , 68 , 71 , 74 , 77 , 80 , 83 , 86 , 89 , 92 , 95 , 98 , 101 , 104 , 107 , 110 , 113 , 116 , 119 , 122 , 125 , 128 , 131 , 134 , 137 , 140 , 143 , 146 , 149 , 152 , 155 , 158 , 161 , 164 , 167 , 170 , 173 , 176 , 179 , 182 , 185 , 188 , 191 , 194 , 197 , 200 , 203 , 206 , 209 , 212 , 215 , 218 , 221 , 224 , 227 , 230 , 233 , 236 , 239 , 242 , 245 , 248 , 251 , 254 , 257 , 260].