In [8]:
```
import numpy as np
a1=np.array([10,20,30,40])
a1
```

Out[8]:
```
array([10, 20, 30, 40])
```

In [9]:
```
a2=np.array((10,20,30,40))
a2
```

Out[9]:
```
array([10, 20, 30, 40])
```

In [10]:
```
a=np.array([10,20.9,30])
a
```

Out[10]:
```
array([10. , 20.9, 30. ])
```

In [11]:
```
a=np.array((20,30,60.9))
a
```

Out[11]:
```
array([20. , 30. , 60.9])
```

In [12]:
```
a=np.array([20,40.8,"200"])
a
```

Out[12]:
```
array(['20', '40.8', '200'], dtype='<U32')
```

In [14]:
```
a=np.array([200,300,400.87,"dsgdgfhgtrhjtyhj"])
a
```

Out[14]:
```
array(['200', '300', '400.87', 'dsgdgfhgtrhjtyhj'], dtype='<U32')
```

In [16]:
```
np.linspace(0,10,18)
```

Out[16]:
```
array([ 0.        ,  0.58823529,  1.17647059,  1.76470588,  2.35294118,
        2.94117647,  3.52941176,  4.11764706,  4.70588235,  5.29411765,
        5.88235294,  6.47058824,  7.05882353,  7.64705882,  8.23529412,
        8.82352941,  9.41176471, 10.        ])
```

In [19]:
```
np.linspace(0,1,600)
```

Out[19]:
```
array([0.        , 0.00166945, 0.0033389 , 0.00500835, 0.0066778 ,
       0.00834725, 0.01001669, 0.01168614, 0.01335559, 0.01502504,
       0.01669449, 0.01836394, 0.02003339, 0.02170284, 0.02337229,
       0.02504174, 0.02671119, 0.02838063, 0.03005008, 0.03171953,
       0.03338898, 0.03505843, 0.03672788, 0.03839733, 0.04006678,
       0.04173623, 0.04340568, 0.04507513, 0.04674457, 0.04841402,
       0.05008347, 0.05175292, 0.05342237, 0.05509182, 0.05676127,
       0.05843072, 0.06010017, 0.06176962, 0.06343907, 0.06510851,
       0.06677796, 0.06844741, 0.07011686, 0.07178631, 0.07345576,
       0.07512521, 0.07679466, 0.07846411, 0.08013356, 0.08180301,
       0.08347245, 0.0851419 , 0.08681135, 0.0884808 , 0.09015025,
       0.0918197 , 0.09348915, 0.0951586 , 0.09682805, 0.0984975 ,
       0.10016694, 0.10183639, 0.10350584, 0.10517529, 0.10684474,
       0.10851419, 0.11018364, 0.11185309, 0.11352254, 0.11519199,
       0.11686144, 0.11853088, 0.12020033, 0.12186978, 0.12353923,
       0.12520868, 0.12687813, 0.12854758, 0.13021703, 0.13188648,
       0.13355593, 0.13522538, 0.13689482, 0.13856427, 0.14023372,
       0.14190317, 0.14357262, 0.14524207, 0.14691152, 0.14858097,
       0.15025042, 0.15191987, 0.15358932, 0.15525876, 0.15692821,
```

In [21]:
```
a=np.arange(0,200)
```

In [22]:
```
a
```

Out[22]:
```
array([  0,   1,   2,   3,   4,   5,   6,   7,   8,   9,  10,  11,  12,
        13,  14,  15,  16,  17,  18,  19,  20,  21,  22,  23,  24,  25,
        26,  27,  28,  29,  30,  31,  32,  33,  34,  35,  36,  37,  38,
        39,  40,  41,  42,  43,  44,  45,  46,  47,  48,  49,  50,  51,
        52,  53,  54,  55,  56,  57,  58,  59,  60,  61,  62,  63,  64,
        65,  66,  67,  68,  69,  70,  71,  72,  73,  74,  75,  76,  77,
        78,  79,  80,  81,  82,  83,  84,  85,  86,  87,  88,  89,  90,
        91,  92,  93,  94,  95,  96,  97,  98,  99, 100, 101, 102, 103,
       104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116,
       117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129,
       130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142,
       143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155,
       156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168,
       169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181,
       182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194,
       195, 196, 197, 198, 199])
```

In [23]:
```
np.exp(a)
```

Out[23]:
```
array([1.00000000e+00, 2.71828183e+00, 7.38905610e+00, 2.00855369e+01,
       5.45981500e+01, 1.48413159e+02, 4.03428793e+02, 1.09663316e+03,
       2.98095799e+03, 8.10308393e+03, 2.20264658e+04, 5.98741417e+04,
       1.62754791e+05, 4.42413392e+05, 1.20260428e+06, 3.26901737e+06,
       8.88611052e+06, 2.41549528e+07, 6.56599691e+07, 1.78482301e+08,
       4.85165195e+08, 1.31881573e+09, 3.58491285e+09, 9.74480345e+09,
       2.64891221e+10, 7.20048993e+10, 1.95729609e+11, 5.32048241e+11,
       1.44625706e+12, 3.93133430e+12, 1.06864746e+13, 2.90488497e+13,
       7.89629602e+13, 2.14643580e+14, 5.83461743e+14, 1.58601345e+15,
       4.31123155e+15, 1.17191424e+16, 3.18559318e+16, 8.65934004e+16,
       2.35385267e+17, 6.39843494e+17, 1.73927494e+18, 4.72783947e+18,
       1.28516001e+19, 3.49342711e+19, 9.49611942e+19, 2.58131289e+20,
       7.01673591e+20, 1.90734657e+21, 5.18470553e+21, 1.40934908e+22,
       3.83100800e+22, 1.04137594e+23, 2.83075330e+23, 7.69478527e+23,
       2.09165950e+24, 5.68572000e+24, 1.54553894e+25, 4.20121040e+25,
       1.14200739e+26, 3.10429794e+26, 8.43835667e+26, 2.29378316e+27,
       6.23514908e+27, 1.69488924e+28, 4.60718663e+28, 1.25236317e+29,
       3.40427605e+29, 9.25378173e+29, 2.51543867e+30, 6.83767123e+30,
       1.85867175e+31, 5.05239363e+31, 1.37338298e+32, 3.73324200e+32,
       1.01480039e+33, 2.75851345e+33, 7.49841700e+33, 2.03828107e+34,
       5.54062238e+34, 1.50609731e+35, 4.09399696e+35, 1.11286375e+36,
       3.02507732e+36, 8.22301271e+36, 2.23524660e+37, 6.07603023e+37,
       1.65163625e+38, 4.48961282e+38, 1.22040329e+39, 3.31740010e+39,
       9.01762841e+39, 2.45124554e+40, 6.66317622e+40, 1.81123908e+41,
       4.92345829e+41, 1.33833472e+42, 3.63797095e+42, 9.88903032e+42,
       2.68811714e+43, 7.30705998e+43, 1.98626484e+44, 5.39922761e+44,
       1.46766223e+45, 3.98951957e+45, 1.08446386e+46, 2.94787839e+46,
       8.01316426e+46, 2.17820388e+47, 5.92097203e+47, 1.60948707e+48,
       4.37503945e+48, 1.18925902e+49, 3.23274119e+49, 8.78750164e+49,
       2.38869060e+50, 6.49313426e+50, 1.76501689e+51, 4.79781333e+51,
       1.30418088e+52, 3.54513118e+52, 9.63666567e+52, 2.61951732e+53,
       7.12058633e+53, 1.93557604e+54, 5.26144118e+54, 1.43020800e+55,
       3.88770841e+55, 1.05678871e+56, 2.87264955e+56, 7.80867107e+56,
       2.12261687e+57, 5.76987086e+57, 1.56841351e+58, 4.26338995e+58,
       1.15890954e+59, 3.15024275e+59, 8.56324762e+59, 2.32773204e+60,
       6.32743171e+60, 1.71997426e+61, 4.67537478e+61, 1.27089863e+62,
       3.45466066e+62, 9.39074129e+62, 2.55266814e+63, 6.93887142e+63,
       1.88618081e+64, 5.12717102e+64, 1.39370958e+65, 3.78849543e+65,
       1.02981983e+66, 2.79934052e+66, 7.60939648e+66, 2.06844842e+67,
       5.62262575e+67, 1.52838814e+68, 4.15458971e+68, 1.12933457e+69,
       3.06984964e+69, 8.34471649e+69, 2.26832912e+70, 6.16595783e+70,
       1.67608111e+71, 4.55606083e+71, 1.23846574e+72, 3.36649891e+72,
       9.15109281e+72, 2.48752493e+73, 6.76179381e+73, 1.83804612e+74,
       4.99632738e+74, 1.35814259e+75, 3.69181433e+75, 1.00353918e+76,
       2.72790232e+76, 7.41520730e+76, 2.01566233e+77, 5.47913827e+77,
       1.48938420e+78, 4.04856601e+78, 1.10051434e+79, 2.99150814e+79,
       8.13176221e+79, 2.21044214e+80, 6.00860471e+80, 1.63330810e+81,
       4.43979173e+81, 1.20686052e+82, 3.28058702e+82, 8.91756007e+82,
       2.42404415e+83, 6.58923516e+83, 1.79113982e+84, 4.86882283e+84,
       1.32348326e+85, 3.59760050e+85, 9.77929207e+85, 2.65828719e+86])
```

In [24]:
```
np.log(a)
```

```
<ipython-input-24-89b6b8e53c58>:1: RuntimeWarning: divide by zero encountered in log
  np.log(a)
```

Out[24]:
```
array([      -inf, 0.        , 0.69314718, 1.09861229, 1.38629436,
       1.60943791, 1.79175947, 1.94591015, 2.07944154, 2.19722458,
       2.30258509, 2.39789527, 2.48490665, 2.56494936, 2.63905733,
       2.7080502 , 2.77258872, 2.83321334, 2.89037176, 2.94443898,
       2.99573227, 3.04452244, 3.09104245, 3.13549422, 3.17805383,
       3.21887582, 3.25809654, 3.29583687, 3.33220451, 3.36729583,
       3.40119738, 3.4339872 , 3.4657359 , 3.49650756, 3.52636052,
       3.55534806, 3.58351894, 3.61091791, 3.63758616, 3.66356165,
       3.68887945, 3.71357207, 3.73766962, 3.76120012, 3.78418963,
       3.80666249, 3.8286414 , 3.8501476 , 3.87120101, 3.8918203 ,
       3.91202301, 3.93182563, 3.95124372, 3.97029191, 3.98898405,
       4.00733319, 4.02535169, 4.04305127, 4.06044301, 4.07753744,
       4.09434456, 4.11087386, 4.12713439, 4.14313473, 4.15888308,
       4.17438727, 4.18965474, 4.20469262, 4.21950771, 4.2341065 ,
       4.24849524, 4.26267988, 4.27666612, 4.29045944, 4.30406509,
       4.31748811, 4.33073334, 4.34380542, 4.35670883, 4.36944785,
       4.38202663, 4.39444915, 4.40671925, 4.41884061, 4.4308168 ,
       4.44265126, 4.4543473 , 4.46590812, 4.47733681, 4.48863637,
       4.49980967, 4.51085951, 4.52178858, 4.53259949, 4.54329478,
       4.55387689, 4.56434819, 4.57471098, 4.58496748, 4.59511985,
       4.60517019, 4.61512052, 4.62497281, 4.63472899, 4.6443909 ,
       4.65396035, 4.66343909, 4.67282883, 4.68213123, 4.69134788,
       4.70048037, 4.7095302 , 4.71849887, 4.72738782, 4.73619845,
       4.74493213, 4.75359019, 4.76217393, 4.77068462, 4.77912349,
       4.78749174, 4.79579055, 4.80402104, 4.81218436, 4.82028157,
       4.82831374, 4.83628191, 4.84418709, 4.85203026, 4.8598124 ,
       4.86753445, 4.87519732, 4.88280192, 4.89034913, 4.8978398 ,
       4.90527478, 4.91265489, 4.91998093, 4.92725369, 4.93447393,
       4.94164242, 4.94875989, 4.95582706, 4.96284463, 4.9698133 ,
       4.97673374, 4.98360662, 4.99043259, 4.99721227, 5.00394631,
       5.01063529, 5.01727984, 5.02388052, 5.03043792, 5.0369526 ,
       5.04342512, 5.04985601, 5.05624581, 5.06259503, 5.0689042 ,
       5.07517382, 5.08140436, 5.08759634, 5.0937502 , 5.09986643,
       5.10594547, 5.11198779, 5.11799381, 5.12396398, 5.12989871,
       5.13579844, 5.14166356, 5.14749448, 5.15329159, 5.1590553 ,
       5.16478597, 5.170484  , 5.17614973, 5.18178355, 5.18738581,
       5.19295685, 5.19849703, 5.20400669, 5.20948615, 5.21493576,
       5.22035583, 5.22574667, 5.23110862, 5.23644196, 5.24174702,
       5.24702407, 5.25227343, 5.25749537, 5.26269019, 5.26785816,
       5.27299956, 5.27811466, 5.28320373, 5.28826703, 5.29330482])
```

In [26]:
```
np.sqrt(a)
```

Out[26]:
```
array([ 0.        ,  1.        ,  1.41421356,  1.73205081,  2.        ,
        2.23606798,  2.44948974,  2.64575131,  2.82842712,  3.        ,
        3.16227766,  3.31662479,  3.46410162,  3.60555128,  3.74165739,
        3.87298335,  4.        ,  4.12310563,  4.24264069,  4.35889894,
        4.47213595,  4.58257569,  4.69041576,  4.79583152,  4.89897949,
        5.        ,  5.09901951,  5.19615242,  5.29150262,  5.38516481,
        5.47722558,  5.56776436,  5.65685425,  5.74456265,  5.83095189,
        5.91607978,  6.        ,  6.08276253,  6.164414  ,  6.244998  ,
        6.32455532,  6.40312424,  6.4807407 ,  6.55743852,  6.63324958,
        6.70820393,  6.78232998,  6.8556546 ,  6.92820323,  7.        ,
        7.07106781,  7.14142843,  7.21110255,  7.28010989,  7.34846923,
        7.41619849,  7.48331477,  7.54983444,  7.61577311,  7.68114575,
        7.74596669,  7.81024968,  7.87400787,  7.93725393,  8.        ,
        8.06225775,  8.1240384 ,  8.18535277,  8.24621125,  8.30662386,
        8.36660027,  8.42614977,  8.48528137,  8.54400375,  8.60232527,
        8.66025404,  8.71779789,  8.77496439,  8.83176087,  8.88819442,
        8.94427191,  9.        ,  9.05538514,  9.11043358,  9.16515139,
        9.21954446,  9.2736185 ,  9.32737905,  9.38083152,  9.43398113,
        9.48683298,  9.53939201,  9.59166305,  9.64365076,  9.69535971,
        9.74679434,  9.79795897,  9.8488578 ,  9.89949494,  9.94987437,
       10.        , 10.04987562, 10.09950494, 10.14889157, 10.19803903,
       10.24695077, 10.29563014, 10.34408043, 10.39230485, 10.44030651,
       10.48808848, 10.53565375, 10.58300524, 10.63014581, 10.67707825,
       10.72380529, 10.77032961, 10.81665383, 10.86278049, 10.90871211,
       10.95445115, 11.        , 11.04536102, 11.09053651, 11.13552873,
       11.18033989, 11.22497216, 11.26942767, 11.3137085 , 11.35781669,
       11.40175425, 11.44552314, 11.48912529, 11.53256259, 11.5758369 ,
       11.61895004, 11.66190379, 11.70469991, 11.74734012, 11.78982612,
       11.83215957, 11.87434209, 11.91637529, 11.95826074, 12.        ,
       12.04159458, 12.08304597, 12.12435565, 12.16552506, 12.20655562,
       12.24744871, 12.28820573, 12.32882801, 12.36931688, 12.40967365,
       12.4498996 , 12.489996  , 12.52996409, 12.56980509, 12.60952021,
       12.64911064, 12.68857754, 12.72792206, 12.76714533, 12.80624847,
       12.84523258, 12.88409873, 12.92284798, 12.9614814 , 13.        ,
       13.03840481, 13.07669683, 13.11487705, 13.15294644, 13.19090596,
       13.22875656, 13.26649916, 13.3041347 , 13.34166406, 13.37908816,
       13.41640786, 13.45362405, 13.49073756, 13.52774926, 13.56465997,
       13.60147051, 13.6381817 , 13.67479433, 13.7113092 , 13.74772708,
       13.78404875, 13.82027496, 13.85640646, 13.89244399, 13.92838828,
       13.96424004, 14.        , 14.03566885, 14.07124728, 14.10673598])
```

In [27]:
```
np.arange(300)
```

Out[27]:
```
array([  0,   1,   2,   3,   4,   5,   6,   7,   8,   9,  10,  11,  12,
        13,  14,  15,  16,  17,  18,  19,  20,  21,  22,  23,  24,  25,
        26,  27,  28,  29,  30,  31,  32,  33,  34,  35,  36,  37,  38,
        39,  40,  41,  42,  43,  44,  45,  46,  47,  48,  49,  50,  51,
        52,  53,  54,  55,  56,  57,  58,  59,  60,  61,  62,  63,  64,
        65,  66,  67,  68,  69,  70,  71,  72,  73,  74,  75,  76,  77,
        78,  79,  80,  81,  82,  83,  84,  85,  86,  87,  88,  89,  90,
        91,  92,  93,  94,  95,  96,  97,  98,  99, 100, 101, 102, 103,
       104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116,
       117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129,
       130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142,
       143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155,
       156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168,
       169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181,
       182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194,
       195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207,
       208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220,
       221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233,
       234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246,
       247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259,
       260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272,
       273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285,
       286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298,
       299])
```

In [28]:
```
l=[np.arange(300),np.arange(20),[3,9,10]]
l
```

Out[28]:
```
[array([  0,   1,   2,   3,   4,   5,   6,   7,   8,   9,  10,  11,  12,
         13,  14,  15,  16,  17,  18,  19,  20,  21,  22,  23,  24,  25,
         26,  27,  28,  29,  30,  31,  32,  33,  34,  35,  36,  37,  38,
         39,  40,  41,  42,  43,  44,  45,  46,  47,  48,  49,  50,  51,
         52,  53,  54,  55,  56,  57,  58,  59,  60,  61,  62,  63,  64,
         65,  66,  67,  68,  69,  70,  71,  72,  73,  74,  75,  76,  77,
         78,  79,  80,  81,  82,  83,  84,  85,  86,  87,  88,  89,  90,
         91,  92,  93,  94,  95,  96,  97,  98,  99, 100, 101, 102, 103,
        104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116,
        117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129,
        130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142,
        143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155,
        156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168,
        169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181,
        182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194,
        195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207,
        208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220,
        221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233,
        234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246,
        247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259,
        260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272,
        273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285,
        286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298,
        299]),
 array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11, 12, 13, 14, 15, 16,
        17, 18, 19]),
 [3, 9, 10]]
```

In [29]:
```
l[0]
```

Out[29]:
```
array([  0,   1,   2,   3,   4,   5,   6,   7,   8,   9,  10,  11,  12,
        13,  14,  15,  16,  17,  18,  19,  20,  21,  22,  23,  24,  25,
        26,  27,  28,  29,  30,  31,  32,  33,  34,  35,  36,  37,  38,
        39,  40,  41,  42,  43,  44,  45,  46,  47,  48,  49,  50,  51,
        52,  53,  54,  55,  56,  57,  58,  59,  60,  61,  62,  63,  64,
        65,  66,  67,  68,  69,  70,  71,  72,  73,  74,  75,  76,  77,
        78,  79,  80,  81,  82,  83,  84,  85,  86,  87,  88,  89,  90,
        91,  92,  93,  94,  95,  96,  97,  98,  99, 100, 101, 102, 103,
       104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116,
       117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129,
       130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142,
       143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155,
       156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168,
       169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181,
       182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194,
       195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207,
       208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220,
       221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233,
       234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246,
       247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259,
       260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272,
       273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285,
       286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298,
       299])
```

In [31]:
```
a1=np.linspace(0,100,1000)
```

In [32]:
```
a2=np.arange(301)
```

In [36]:
```
t=(a1,a2,(1,6,9))
t
```

Out[36]:
```
(array([  0.        ,   0.1001001 ,   0.2002002 ,   0.3003003 ,
          0.4004004 ,   0.5005005 ,   0.6006006 ,   0.7007007 ,
          0.8008008 ,   0.9009009 ,   1.001001  ,   1.1011011 ,
          1.2012012 ,   1.3013013 ,   1.4014014 ,   1.5015015 ,
          1.6016016 ,   1.7017017 ,   1.8018018 ,   1.9019019 ,
          2.002002  ,   2.1021021 ,   2.2022022 ,   2.3023023 ,
          2.4024024 ,   2.5025025 ,   2.6026026 ,   2.7027027 ,
          2.8028028 ,   2.9029029 ,   3.003003  ,   3.1031031 ,
          3.2032032 ,   3.3033033 ,   3.4034034 ,   3.5035035 ,
          3.6036036 ,   3.7037037 ,   3.8038038 ,   3.9039039 ,
          4.004004  ,   4.1041041 ,   4.2042042 ,   4.3043043 ,
          4.4044044 ,   4.5045045 ,   4.6046046 ,   4.7047047 ,
          4.8048048 ,   4.9049049 ,   5.00500501,   5.10510511,
          5.20520521,   5.30530531,   5.40540541,   5.50550551,
          5.60560561,   5.70570571,   5.80580581,   5.90590591,
          6.00600601,   6.10610611,   6.20620621,   6.30630631,
          6.40640641,   6.50650651,   6.60660661,   6.70670671,
          6.80680681,   6.90690691,   7.00700701,   7.10710711,
          7.20720721,   7.30730731,   7.40740741,   7.50750751,
```

In [38]:
```
t[1]
```

Out[38]:
```
array([  0,   1,   2,   3,   4,   5,   6,   7,   8,   9,  10,  11,  12,
        13,  14,  15,  16,  17,  18,  19,  20,  21,  22,  23,  24,  25,
        26,  27,  28,  29,  30,  31,  32,  33,  34,  35,  36,  37,  38,
        39,  40,  41,  42,  43,  44,  45,  46,  47,  48,  49,  50,  51,
        52,  53,  54,  55,  56,  57,  58,  59,  60,  61,  62,  63,  64,
        65,  66,  67,  68,  69,  70,  71,  72,  73,  74,  75,  76,  77,
        78,  79,  80,  81,  82,  83,  84,  85,  86,  87,  88,  89,  90,
        91,  92,  93,  94,  95,  96,  97,  98,  99, 100, 101, 102, 103,
       104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116,
       117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129,
       130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142,
       143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155,
       156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168,
       169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181,
       182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194,
       195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207,
       208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220,
       221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233,
       234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246,
       247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259,
       260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272,
       273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285,
       286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298,
       299, 300])
```

In [41]:
```
a=np.arange(2,31,3)
```

In [42]:
```
a
```

Out[42]:
```
array([ 2,  5,  8, 11, 14, 17, 20, 23, 26, 29])
```

In [43]:
```
a[3]
```

Out[43]:
```
11
```

In [44]:
```
a[-4]
```

Out[44]:
```
20
```

In [46]:
```
a[1:7:2]
```

Out[46]:
```
array([ 5, 11, 17])
```

In [47]:
```
a[:8]
```

Out[47]:
```
array([ 2,  5,  8, 11, 14, 17, 20, 23])
```

In [48]:
```
a[-7:-1]
```

Out[48]:
```
array([11, 14, 17, 20, 23, 26])
```

In [ ]:
```

```