

```
>> 6+2
```

```
ans =
```

```
8
```

```
>> 6-2
```

```
ans =
```

```
4
```

```
>> 6*2
```

```
ans =
```

```
12
```

```
>> 6*/2
```

```
6*/2
```

```
↑
```

```
Error: Invalid use of operator.
```

```
>> 6/2
```

```
ans =
```

```
3
```

```
>> 6^2
```

```
ans =
```

```
36
```

```
>> 6+2*3^2/4
```

```
ans =
```

```
10.5000
```

```
>> 6+2*(3^2/4)
```

```
ans =
```

```
10.5000
```

```
>> (6+2)*(3^2/4)
```

```
ans =
```

```
18
```

```
>> 1/0
```

```
ans =
```

```
Inf
```

```
>> pi
```

```
ans =
```

```
3.1416
>> rand
ans =
    0.5469
>> sin(0)
ans =
    0
>> sin(pi)
ans =
    1.2246e-16
>> asin(1)
ans =
    1.5708
>> pi/2
ans =
    1.5708
>> abs(-1)
ans =
    1
>> sqrt(4)
ans =
    2
>> sqrt(-1)
ans =
    0.0000 + 1.0000i
>> i^2
ans =
    -1
>> (-i)^2
ans =
    -1
```

```
>> x=rand
```

```
x =
```

```
    0.9575
```

```
>> sin(x)^2+cos(x)^2
```

```
ans =
```

```
    1.0000
```

```
>> cosh(x)^2-sinh(x)^2
```

```
ans =
```

```
    1.0000
```

```
>> cos(i)
```

```
ans =
```

```
    1.5431
```

```
>> cosh(1)
```

```
ans =
```

```
    1.5431
```

```
>> cos(1)
```

```
ans =
```

```
    0.5403
```

```
>> cosh(i)
```

```
ans =
```

```
    0.5403
```

```
>> exp(1)
```

```
ans =
```

```
    2.7183
```

```
>> log(2.71828)
```

```
ans =
```

```
    1.0000
```

```
>> log10(10)
```

```
ans =
```

```
    1
```

```
>> log(cosh(x)+sinh(x))
```

```
ans =
```

```
    0.9575
```

```
>> x
```

```
x =
```

```
    0.9575
```

```
>> log(cos(i*x)+sin(i*x))
```

```
ans =
```

```
    0.6217 + 0.6391i
```

```
>> A=[2 -3 1;0 1 -3;-4 2 1];
```

```
>> A
```

```
A =
```

```
     2     -3     1
     0      1    -3
    -4      2     1
```

```
>> B=[1 0 0;0 1 0; 0 0 1]
```

```
B =
```

```
     1     0     0
     0     1     0
     0     0     1
```

```
>> A+B
```

```
ans =
```

```
     3     -3     1
     0      2    -3
    -4      2     2
```

```
>> A*B
```

```
ans =
```

```
     2     -3     1
     0      1    -3
    -4      2     1
```

```
>> C=[1 1;2 1]
```

```
C =
```

```
     1     1
     2     1
```

```
>> A*C
```

```
Error using *
```

```
Incorrect dimensions for matrix multiplication. Check that the number of columns  
in the first matrix matches the number of rows in the second matrix. To perform  
elementwise multiplication, use '.*'.
```

Related documentation

```
>> inv(A)
```

```
ans =
```

```
-0.3889 -0.2778 -0.4444  
-0.6667 -0.3333 -0.3333  
-0.2222 -0.4444 -0.1111
```

```
>> J=inv(A)
```

```
J =
```

```
-0.3889 -0.2778 -0.4444  
-0.6667 -0.3333 -0.3333  
-0.2222 -0.4444 -0.1111
```

```
>> A*J
```

```
ans =
```

```
1.0000 0 0.0000  
0 1.0000 0  
0.0000 0.0000 1.0000
```

```
>> det(A)
```

```
ans =
```

```
-18
```

```
>> transpose(A)
```

```
ans =
```

```
2 0 -4  
-3 1 2  
1 -3 1
```

```
>> transpose(transpose(B)*transpose(A))
```

```
ans =
```

```
2 -3 1  
0 1 -3  
-4 2 1
```

```
>> a=[7;-3;2]
```

```
a =
```

```
7  
-3  
2
```

```
>> at=[7 -3 2]
```

```
at =
```

```
7 -3 2
```

```
>> transpose(a)
```

```
ans =
```

```
    7    -3     2
```

```
>> b=[1;2;0]
```

```
b =
```

```
    1  
    2  
    0
```

```
>> dot(a,b)
```

```
ans =
```

```
    1
```

```
>> cross(a,b)
```

```
ans =
```

```
   -4  
    2  
   17
```

```
>> norm(a)
```

```
ans =
```

```
   7.8740
```

```
>> A*a
```

```
ans =
```

```
   25  
   -9  
  -32
```

```
>> a*A
```

```
Error using *
```

```
Incorrect dimensions for matrix multiplication. Check that the number of columns  
in the first matrix matches the number of rows in the second matrix. To perform  
elementwise multiplication, use '.*'.
```

Related documentation

```
>> transpose(a)*A
```

```
ans =
```

```
    6   -20   18
```

```
>> A^2
```

```
ans =
```

```
    0    -7   12
```

```
    12    -5    -6
   -12    16   -9
```

```
>> A.^2
```

```
ans =
```

```
    4    9    1
    0    1    9
   16    4    1
```

```
>> norm(a)^2
```

```
ans =
```

```
    62
```

```
>> a
```

```
a =
```

```
    7
   -3
    2
```

```
>> a.^2
```

```
ans =
```

```
   49
    9
    4
```

```
>> sum(a.^2)
```

```
ans =
```

```
    62
```

```
>> norm(a)
```

```
ans =
```

```
    7.8740
```

```
>> norm(a)^2
```

```
ans =
```

```
    62
```

```
>> sqrt(sum(a.^2))
```

```
ans =
```

```
    7.8740
```

```
>> c=1:100;
```

```
>> c
```

```
c =
```

Columns 1 through 13

1	2	3	4	5	6	7	8	9	10	11	12	13
---	---	---	---	---	---	---	---	---	----	----	----	----

Columns 14 through 26

14	15	16	17	18	19	20	21	22	23	24	25	26
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 27 through 39

27	28	29	30	31	32	33	34	35	36	37	38	39
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 40 through 52

40	41	42	43	44	45	46	47	48	49	50	51	52
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 53 through 65

53	54	55	56	57	58	59	60	61	62	63	64	65
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 66 through 78

66	67	68	69	70	71	72	73	74	75	76	77	78
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 79 through 91

79	80	81	82	83	84	85	86	87	88	89	90	91
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 92 through 100

92	93	94	95	96	97	98	99	100
----	----	----	----	----	----	----	----	-----

```
>> c=1:2:10
```

c =

1	3	5	7	9
---	---	---	---	---

```
>> c=linspace(0,100,101)
```

c =

Columns 1 through 13

0	1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	---	----	----	----

Columns 14 through 26

13	14	15	16	17	18	19	20	21	22	23	24	25
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 27 through 39

26	27	28	29	30	31	32	33	34	35	36	37	38
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 40 through 52

39	40	41	42	43	44	45	46	47	48	49	50	51
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 53 through 65

52	53	54	55	56	57	58	59	60	61	62	63	64
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 66 through 78

65	66	67	68	69	70	71	72	73	74	75	76	77
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 79 through 91

78	79	80	81	82	83	84	85	86	87	88	89	90
----	----	----	----	----	----	----	----	----	----	----	----	----

Columns 92 through 101

91	92	93	94	95	96	97	98	99	100
----	----	----	----	----	----	----	----	----	-----

```
>> g=1:2:10000;  
>> h=2:2:10000;  
>> prod(g./h)
```

ans =

0.0080

```
>> y=linspace(0,1,10)
```

y =

Columns 1 through 8

0	0.1111	0.2222	0.3333	0.4444	0.5556	0.6667	0.7778
---	--------	--------	--------	--------	--------	--------	--------

Columns 9 through 10

0.8889	1.0000
--------	--------

```
>> y=linspace(0,1,101);  
>> sum((y.^2)/100)
```

ans =

0.3384

```
>> y=linspace(0,1,10001);  
>> sum((y.^2)/10000)
```

ans =

0.3334

```
>> %1-1/3+1/5-1/7+....  
>> ones(1,6)
```

ans =

1	1	1	1	1	1
---	---	---	---	---	---

```
>> e=(0:9)
```

e =

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

```
>> t=(-1)
```

t =

```
-1
>> t=(-1).^e
t =
    1    -1     1    -1     1    -1     1    -1     1    -1
>> n=1:2:19
n =
     1     3     5     7     9    11    13    15    17    19
>> sum(t./n)
ans =
    0.7605
>> pi/4
ans =
    0.7854
>> e=(0:99);
>> t=(-1).^e;
>> n=1:2:199
n =
Columns 1 through 13
     1     3     5     7     9    11    13    15    17    19    21    23    25
Columns 14 through 26
    27    29    31    33    35    37    39    41    43    45    47    49    51
Columns 27 through 39
    53    55    57    59    61    63    65    67    69    71    73    75    77
Columns 40 through 52
    79    81    83    85    87    89    91    93    95    97    99   101   103
Columns 53 through 65
   105   107   109   111   113   115   117   119   121   123   125   127   129
Columns 66 through 78
   131   133   135   137   139   141   143   145   147   149   151   153   155
Columns 79 through 91
   157   159   161   163   165   167   169   171   173   175   177   179   181
Columns 92 through 100
```

```
183 185 187 189 191 193 195 197 199
>> sum(t./n)
ans =
    0.7829
>> pi/4
ans =
    0.7854
>> x=[1;3;2;0;1]
x =
     1
     3
     2
     0
     1
>> plot(x)
>> y=[1;2;4;3;1];
>> plot(x,y)
>> x=linspace(-pi,pi,100);
>> y=sin(x);
>> z=sin(x.^2);
>> w=sin(x).^2;
>> plot(x,y,'r')
>> hold on
>> plot(x,z,'g')
>> hold on
>> plot(x,w,'b')
>> r=-1:0.05:1;
>> s=-1:0.05:1;
>> [x,y]=meshgrid(r,s);
>> z=exp(-(x.^2+y.^2))
z =
Columns 1 through 8
    0.1353    0.1492    0.1637    0.1786    0.1940    0.2096    0.2254    0.2411
    0.1492    0.1645    0.1804    0.1969    0.2138    0.2311    0.2485    0.2658
    0.1637    0.1804    0.1979    0.2160    0.2346    0.2535    0.2725    0.2916
    0.1786    0.1969    0.2160    0.2357    0.2560    0.2767    0.2975    0.3182
    0.1940    0.2138    0.2346    0.2560    0.2780    0.3004    0.3230    0.3456
    0.2096    0.2311    0.2535    0.2767    0.3004    0.3247    0.3491    0.3734
    0.2254    0.2485    0.2725    0.2975    0.3230    0.3491    0.3753    0.4015
    0.2411    0.2658    0.2916    0.3182    0.3456    0.3734    0.4015    0.4296
    0.2567    0.2829    0.3104    0.3387    0.3679    0.3975    0.4274    0.4573
    0.2719    0.2997    0.3287    0.3588    0.3897    0.4211    0.4527    0.4843
    0.2865    0.3158    0.3465    0.3781    0.4107    0.4437    0.4771    0.5104
    0.3004    0.3312    0.3633    0.3965    0.4306    0.4653    0.5003    0.5353
    0.3135    0.3456    0.3791    0.4137    0.4493    0.4855    0.5220    0.5585
    0.3255    0.3588    0.3936    0.4296    0.4665    0.5041    0.5420    0.5798
    0.3362    0.3706    0.4066    0.4437    0.4819    0.5207    0.5599    0.5990
    0.3456    0.3810    0.4179    0.4561    0.4953    0.5353    0.5755    0.6157
```

0.3535	0.3897	0.4274	0.4665	0.5066	0.5474	0.5886	0.6297
0.3597	0.3965	0.4350	0.4747	0.5156	0.5571	0.5990	0.6408
0.3642	0.4015	0.4404	0.4807	0.5220	0.5641	0.6065	0.6489
0.3670	0.4045	0.4437	0.4843	0.5260	0.5684	0.6111	0.6538
0.3679	0.4056	0.4449	0.4855	0.5273	0.5698	0.6126	0.6554
0.3670	0.4045	0.4437	0.4843	0.5260	0.5684	0.6111	0.6538
0.3642	0.4015	0.4404	0.4807	0.5220	0.5641	0.6065	0.6489
0.3597	0.3965	0.4350	0.4747	0.5156	0.5571	0.5990	0.6408
0.3535	0.3897	0.4274	0.4665	0.5066	0.5474	0.5886	0.6297
0.3456	0.3810	0.4179	0.4561	0.4953	0.5353	0.5755	0.6157
0.3362	0.3706	0.4066	0.4437	0.4819	0.5207	0.5599	0.5990
0.3255	0.3588	0.3936	0.4296	0.4665	0.5041	0.5420	0.5798
0.3135	0.3456	0.3791	0.4137	0.4493	0.4855	0.5220	0.5585
0.3004	0.3312	0.3633	0.3965	0.4306	0.4653	0.5003	0.5353
0.2865	0.3158	0.3465	0.3781	0.4107	0.4437	0.4771	0.5104
0.2719	0.2997	0.3287	0.3588	0.3897	0.4211	0.4527	0.4843
0.2567	0.2829	0.3104	0.3387	0.3679	0.3975	0.4274	0.4573
0.2411	0.2658	0.2916	0.3182	0.3456	0.3734	0.4015	0.4296
0.2254	0.2485	0.2725	0.2975	0.3230	0.3491	0.3753	0.4015
0.2096	0.2311	0.2535	0.2767	0.3004	0.3247	0.3491	0.3734
0.1940	0.2138	0.2346	0.2560	0.2780	0.3004	0.3230	0.3456
0.1786	0.1969	0.2160	0.2357	0.2560	0.2767	0.2975	0.3182
0.1637	0.1804	0.1979	0.2160	0.2346	0.2535	0.2725	0.2916
0.1492	0.1645	0.1804	0.1969	0.2138	0.2311	0.2485	0.2658
0.1353	0.1492	0.1637	0.1786	0.1940	0.2096	0.2254	0.2411

Columns 9 through 16

0.2567	0.2719	0.2865	0.3004	0.3135	0.3255	0.3362	0.3456
0.2829	0.2997	0.3158	0.3312	0.3456	0.3588	0.3706	0.3810
0.3104	0.3287	0.3465	0.3633	0.3791	0.3936	0.4066	0.4179
0.3387	0.3588	0.3781	0.3965	0.4137	0.4296	0.4437	0.4561
0.3679	0.3897	0.4107	0.4306	0.4493	0.4665	0.4819	0.4953
0.3975	0.4211	0.4437	0.4653	0.4855	0.5041	0.5207	0.5353
0.4274	0.4527	0.4771	0.5003	0.5220	0.5420	0.5599	0.5755
0.4573	0.4843	0.5104	0.5353	0.5585	0.5798	0.5990	0.6157
0.4868	0.5156	0.5434	0.5698	0.5945	0.6172	0.6376	0.6554
0.5156	0.5461	0.5755	0.6035	0.6297	0.6538	0.6754	0.6942
0.5434	0.5755	0.6065	0.6360	0.6637	0.6890	0.7118	0.7316
0.5698	0.6035	0.6360	0.6670	0.6959	0.7225	0.7464	0.7672
0.5945	0.6297	0.6637	0.6959	0.7261	0.7539	0.7788	0.8005
0.6172	0.6538	0.6890	0.7225	0.7539	0.7827	0.8086	0.8311
0.6376	0.6754	0.7118	0.7464	0.7788	0.8086	0.8353	0.8586
0.6554	0.6942	0.7316	0.7672	0.8005	0.8311	0.8586	0.8825
0.6703	0.7100	0.7483	0.7847	0.8187	0.8500	0.8781	0.9026
0.6822	0.7225	0.7615	0.7985	0.8332	0.8650	0.8936	0.9185
0.6907	0.7316	0.7711	0.8086	0.8437	0.8759	0.9048	0.9301
0.6959	0.7371	0.7769	0.8146	0.8500	0.8825	0.9116	0.9371
0.6977	0.7390	0.7788	0.8167	0.8521	0.8847	0.9139	0.9394
0.6959	0.7371	0.7769	0.8146	0.8500	0.8825	0.9116	0.9371
0.6907	0.7316	0.7711	0.8086	0.8437	0.8759	0.9048	0.9301
0.6822	0.7225	0.7615	0.7985	0.8332	0.8650	0.8936	0.9185
0.6703	0.7100	0.7483	0.7847	0.8187	0.8500	0.8781	0.9026
0.6554	0.6942	0.7316	0.7672	0.8005	0.8311	0.8586	0.8825
0.6376	0.6754	0.7118	0.7464	0.7788	0.8086	0.8353	0.8586
0.6172	0.6538	0.6890	0.7225	0.7539	0.7827	0.8086	0.8311
0.5945	0.6297	0.6637	0.6959	0.7261	0.7539	0.7788	0.8005
0.5698	0.6035	0.6360	0.6670	0.6959	0.7225	0.7464	0.7672
0.5434	0.5755	0.6065	0.6360	0.6637	0.6890	0.7118	0.7316
0.5156	0.5461	0.5755	0.6035	0.6297	0.6538	0.6754	0.6942
0.4868	0.5156	0.5434	0.5698	0.5945	0.6172	0.6376	0.6554
0.4573	0.4843	0.5104	0.5353	0.5585	0.5798	0.5990	0.6157

0.4274	0.4527	0.4771	0.5003	0.5220	0.5420	0.5599	0.5755
0.3975	0.4211	0.4437	0.4653	0.4855	0.5041	0.5207	0.5353
0.3679	0.3897	0.4107	0.4306	0.4493	0.4665	0.4819	0.4953
0.3387	0.3588	0.3781	0.3965	0.4137	0.4296	0.4437	0.4561
0.3104	0.3287	0.3465	0.3633	0.3791	0.3936	0.4066	0.4179
0.2829	0.2997	0.3158	0.3312	0.3456	0.3588	0.3706	0.3810
0.2567	0.2719	0.2865	0.3004	0.3135	0.3255	0.3362	0.3456

Columns 17 through 24

0.3535	0.3597	0.3642	0.3670	0.3679	0.3670	0.3642	0.3597
0.3897	0.3965	0.4015	0.4045	0.4056	0.4045	0.4015	0.3965
0.4274	0.4350	0.4404	0.4437	0.4449	0.4437	0.4404	0.4350
0.4665	0.4747	0.4807	0.4843	0.4855	0.4843	0.4807	0.4747
0.5066	0.5156	0.5220	0.5260	0.5273	0.5260	0.5220	0.5156
0.5474	0.5571	0.5641	0.5684	0.5698	0.5684	0.5641	0.5571
0.5886	0.5990	0.6065	0.6111	0.6126	0.6111	0.6065	0.5990
0.6297	0.6408	0.6489	0.6538	0.6554	0.6538	0.6489	0.6408
0.6703	0.6822	0.6907	0.6959	0.6977	0.6959	0.6907	0.6822
0.7100	0.7225	0.7316	0.7371	0.7390	0.7371	0.7316	0.7225
0.7483	0.7615	0.7711	0.7769	0.7788	0.7769	0.7711	0.7615
0.7847	0.7985	0.8086	0.8146	0.8167	0.8146	0.8086	0.7985
0.8187	0.8332	0.8437	0.8500	0.8521	0.8500	0.8437	0.8332
0.8500	0.8650	0.8759	0.8825	0.8847	0.8825	0.8759	0.8650
0.8781	0.8936	0.9048	0.9116	0.9139	0.9116	0.9048	0.8936
0.9026	0.9185	0.9301	0.9371	0.9394	0.9371	0.9301	0.9185
0.9231	0.9394	0.9512	0.9584	0.9608	0.9584	0.9512	0.9394
0.9394	0.9560	0.9680	0.9753	0.9778	0.9753	0.9680	0.9560
0.9512	0.9680	0.9802	0.9876	0.9900	0.9876	0.9802	0.9680
0.9584	0.9753	0.9876	0.9950	0.9975	0.9950	0.9876	0.9753
0.9608	0.9778	0.9900	0.9975	1.0000	0.9975	0.9900	0.9778
0.9584	0.9753	0.9876	0.9950	0.9975	0.9950	0.9876	0.9753
0.9512	0.9680	0.9802	0.9876	0.9900	0.9876	0.9802	0.9680
0.9394	0.9560	0.9680	0.9753	0.9778	0.9753	0.9680	0.9560
0.9231	0.9394	0.9512	0.9584	0.9608	0.9584	0.9512	0.9394
0.9026	0.9185	0.9301	0.9371	0.9394	0.9371	0.9301	0.9185
0.8781	0.8936	0.9048	0.9116	0.9139	0.9116	0.9048	0.8936
0.8500	0.8650	0.8759	0.8825	0.8847	0.8825	0.8759	0.8650
0.8187	0.8332	0.8437	0.8500	0.8521	0.8500	0.8437	0.8332
0.7847	0.7985	0.8086	0.8146	0.8167	0.8146	0.8086	0.7985
0.7483	0.7615	0.7711	0.7769	0.7788	0.7769	0.7711	0.7615
0.7100	0.7225	0.7316	0.7371	0.7390	0.7371	0.7316	0.7225
0.6703	0.6822	0.6907	0.6959	0.6977	0.6959	0.6907	0.6822
0.6297	0.6408	0.6489	0.6538	0.6554	0.6538	0.6489	0.6408
0.5886	0.5990	0.6065	0.6111	0.6126	0.6111	0.6065	0.5990
0.5474	0.5571	0.5641	0.5684	0.5698	0.5684	0.5641	0.5571
0.5066	0.5156	0.5220	0.5260	0.5273	0.5260	0.5220	0.5156
0.4665	0.4747	0.4807	0.4843	0.4855	0.4843	0.4807	0.4747
0.4274	0.4350	0.4404	0.4437	0.4449	0.4437	0.4404	0.4350
0.3897	0.3965	0.4015	0.4045	0.4056	0.4045	0.4015	0.3965
0.3535	0.3597	0.3642	0.3670	0.3679	0.3670	0.3642	0.3597

Columns 25 through 32

0.3535	0.3456	0.3362	0.3255	0.3135	0.3004	0.2865	0.2719
0.3897	0.3810	0.3706	0.3588	0.3456	0.3312	0.3158	0.2997
0.4274	0.4179	0.4066	0.3936	0.3791	0.3633	0.3465	0.3287
0.4665	0.4561	0.4437	0.4296	0.4137	0.3965	0.3781	0.3588
0.5066	0.4953	0.4819	0.4665	0.4493	0.4306	0.4107	0.3897
0.5474	0.5353	0.5207	0.5041	0.4855	0.4653	0.4437	0.4211
0.5886	0.5755	0.5599	0.5420	0.5220	0.5003	0.4771	0.4527
0.6297	0.6157	0.5990	0.5798	0.5585	0.5353	0.5104	0.4843

0.6703	0.6554	0.6376	0.6172	0.5945	0.5698	0.5434	0.5156
0.7100	0.6942	0.6754	0.6538	0.6297	0.6035	0.5755	0.5461
0.7483	0.7316	0.7118	0.6890	0.6637	0.6360	0.6065	0.5755
0.7847	0.7672	0.7464	0.7225	0.6959	0.6670	0.6360	0.6035
0.8187	0.8005	0.7788	0.7539	0.7261	0.6959	0.6637	0.6297
0.8500	0.8311	0.8086	0.7827	0.7539	0.7225	0.6890	0.6538
0.8781	0.8586	0.8353	0.8086	0.7788	0.7464	0.7118	0.6754
0.9026	0.8825	0.8586	0.8311	0.8005	0.7672	0.7316	0.6942
0.9231	0.9026	0.8781	0.8500	0.8187	0.7847	0.7483	0.7100
0.9394	0.9185	0.8936	0.8650	0.8332	0.7985	0.7615	0.7225
0.9512	0.9301	0.9048	0.8759	0.8437	0.8086	0.7711	0.7316
0.9584	0.9371	0.9116	0.8825	0.8500	0.8146	0.7769	0.7371
0.9608	0.9394	0.9139	0.8847	0.8521	0.8167	0.7788	0.7390
0.9584	0.9371	0.9116	0.8825	0.8500	0.8146	0.7769	0.7371
0.9512	0.9301	0.9048	0.8759	0.8437	0.8086	0.7711	0.7316
0.9394	0.9185	0.8936	0.8650	0.8332	0.7985	0.7615	0.7225
0.9231	0.9026	0.8781	0.8500	0.8187	0.7847	0.7483	0.7100
0.9026	0.8825	0.8586	0.8311	0.8005	0.7672	0.7316	0.6942
0.8781	0.8586	0.8353	0.8086	0.7788	0.7464	0.7118	0.6754
0.8500	0.8311	0.8086	0.7827	0.7539	0.7225	0.6890	0.6538
0.8187	0.8005	0.7788	0.7539	0.7261	0.6959	0.6637	0.6297
0.7847	0.7672	0.7464	0.7225	0.6959	0.6670	0.6360	0.6035
0.7483	0.7316	0.7118	0.6890	0.6637	0.6360	0.6065	0.5755
0.7100	0.6942	0.6754	0.6538	0.6297	0.6035	0.5755	0.5461
0.6703	0.6554	0.6376	0.6172	0.5945	0.5698	0.5434	0.5156
0.6297	0.6157	0.5990	0.5798	0.5585	0.5353	0.5104	0.4843
0.5886	0.5755	0.5599	0.5420	0.5220	0.5003	0.4771	0.4527
0.5474	0.5353	0.5207	0.5041	0.4855	0.4653	0.4437	0.4211
0.5066	0.4953	0.4819	0.4665	0.4493	0.4306	0.4107	0.3897
0.4665	0.4561	0.4437	0.4296	0.4137	0.3965	0.3781	0.3588
0.4274	0.4179	0.4066	0.3936	0.3791	0.3633	0.3465	0.3287
0.3897	0.3810	0.3706	0.3588	0.3456	0.3312	0.3158	0.2997
0.3535	0.3456	0.3362	0.3255	0.3135	0.3004	0.2865	0.2719

Columns 33 through 40

0.2567	0.2411	0.2254	0.2096	0.1940	0.1786	0.1637	0.1492
0.2829	0.2658	0.2485	0.2311	0.2138	0.1969	0.1804	0.1645
0.3104	0.2916	0.2725	0.2535	0.2346	0.2160	0.1979	0.1804
0.3387	0.3182	0.2975	0.2767	0.2560	0.2357	0.2160	0.1969
0.3679	0.3456	0.3230	0.3004	0.2780	0.2560	0.2346	0.2138
0.3975	0.3734	0.3491	0.3247	0.3004	0.2767	0.2535	0.2311
0.4274	0.4015	0.3753	0.3491	0.3230	0.2975	0.2725	0.2485
0.4573	0.4296	0.4015	0.3734	0.3456	0.3182	0.2916	0.2658
0.4868	0.4573	0.4274	0.3975	0.3679	0.3387	0.3104	0.2829
0.5156	0.4843	0.4527	0.4211	0.3897	0.3588	0.3287	0.2997
0.5434	0.5104	0.4771	0.4437	0.4107	0.3781	0.3465	0.3158
0.5698	0.5353	0.5003	0.4653	0.4306	0.3965	0.3633	0.3312
0.5945	0.5585	0.5220	0.4855	0.4493	0.4137	0.3791	0.3456
0.6172	0.5798	0.5420	0.5041	0.4665	0.4296	0.3936	0.3588
0.6376	0.5990	0.5599	0.5207	0.4819	0.4437	0.4066	0.3706
0.6554	0.6157	0.5755	0.5353	0.4953	0.4561	0.4179	0.3810
0.6703	0.6297	0.5886	0.5474	0.5066	0.4665	0.4274	0.3897
0.6822	0.6408	0.5990	0.5571	0.5156	0.4747	0.4350	0.3965
0.6907	0.6489	0.6065	0.5641	0.5220	0.4807	0.4404	0.4015
0.6959	0.6538	0.6111	0.5684	0.5260	0.4843	0.4437	0.4045
0.6977	0.6554	0.6126	0.5698	0.5273	0.4855	0.4449	0.4056
0.6959	0.6538	0.6111	0.5684	0.5260	0.4843	0.4437	0.4045
0.6907	0.6489	0.6065	0.5641	0.5220	0.4807	0.4404	0.4015
0.6822	0.6408	0.5990	0.5571	0.5156	0.4747	0.4350	0.3965
0.6703	0.6297	0.5886	0.5474	0.5066	0.4665	0.4274	0.3897
0.6554	0.6157	0.5755	0.5353	0.4953	0.4561	0.4179	0.3810

0.6376	0.5990	0.5599	0.5207	0.4819	0.4437	0.4066	0.3706
0.6172	0.5798	0.5420	0.5041	0.4665	0.4296	0.3936	0.3588
0.5945	0.5585	0.5220	0.4855	0.4493	0.4137	0.3791	0.3456
0.5698	0.5353	0.5003	0.4653	0.4306	0.3965	0.3633	0.3312
0.5434	0.5104	0.4771	0.4437	0.4107	0.3781	0.3465	0.3158
0.5156	0.4843	0.4527	0.4211	0.3897	0.3588	0.3287	0.2997
0.4868	0.4573	0.4274	0.3975	0.3679	0.3387	0.3104	0.2829
0.4573	0.4296	0.4015	0.3734	0.3456	0.3182	0.2916	0.2658
0.4274	0.4015	0.3753	0.3491	0.3230	0.2975	0.2725	0.2485
0.3975	0.3734	0.3491	0.3247	0.3004	0.2767	0.2535	0.2311
0.3679	0.3456	0.3230	0.3004	0.2780	0.2560	0.2346	0.2138
0.3387	0.3182	0.2975	0.2767	0.2560	0.2357	0.2160	0.1969
0.3104	0.2916	0.2725	0.2535	0.2346	0.2160	0.1979	0.1804
0.2829	0.2658	0.2485	0.2311	0.2138	0.1969	0.1804	0.1645
0.2567	0.2411	0.2254	0.2096	0.1940	0.1786	0.1637	0.1492

Column 41

0.1353
0.1492
0.1637
0.1786
0.1940
0.2096
0.2254
0.2411
0.2567
0.2719
0.2865
0.3004
0.3135
0.3255
0.3362
0.3456
0.3535
0.3597
0.3642
0.3670
0.3679
0.3670
0.3642
0.3597
0.3535
0.3456
0.3362
0.3255
0.3135
0.3004
0.2865
0.2719
0.2567
0.2411
0.2254
0.2096
0.1940
0.1786
0.1637
0.1492
0.1353

```
>> mesh(x,y,z)
>> t=linspace(0,8*pi,100);
```

```
>> x=cos(t);
>> y=sin(t);
>> z=t;
>> plot3(x,y,z)
>> A=[0.4 0.3 0.3;0.2 0.6 0.2;0.4 0.1 0.5]
```

```
A =
```

```
    0.4000    0.3000    0.3000
    0.2000    0.6000    0.2000
    0.4000    0.1000    0.5000
```

```
>> sum(A(1,:))
```

```
ans =
```

```
    1
```

```
>> sum(A(:,2))
```

```
ans =
```

```
    1.0000
```

```
>> [u,v]=eig(A)
```

```
u =
```

```
   -0.5774   -0.7071    0.0000
   -0.5774    0.0000   -0.7071
   -0.5774    0.7071    0.7071
```

```
v =
```

```
    1.0000    0    0
    0    0.1000    0
    0    0    0.4000
```

```
>> w2=u(:,2)
```

```
w2 =
```

```
   -0.7071
    0.0000
    0.7071
```

```
>> A*w2
```

```
ans =
```

```
   -0.0707
    0.0000
    0.0707
```

```
>>
```