Solucion de un sistema de EDO usando el Metodo de Euler

```
clear all;
clc
h = 0.01;
t = 0:h:1;
U0 = [1;1];
F = @(t,u) [3*u(1)+2*u(2)-(2*t^2+1)*exp(2*t);4*u(1)+u(2)+(t^2+2*t-4)*exp(2*t)];
```

```
Implementado Euler
  U(:,1)=U0;
  n = length(t);
  for i = 1:n-1
       U(:,i+1)=U(:,i)+h*F(t(i),U(:,i))
  end
  U = 2 \times 2
      1.0000
                 1.0400
      1.0000
                 1.0100
  U = 2 \times 3
      1.0000
                 1.0400
                             1.0812
      1.0000
                 1.0100
                             1.0211
  U = 2 \times 4
                 1.0400
                             1.0812
                                        1.1236
      1.0000
      1.0000
                 1.0100
                             1.0211
                                        1.0333
  U = 2 \times 5
      1.0000
                  1.0400
                             1.0812
                                        1.1236
                                                   1.1674
      1.0000
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
  U = 2 \times 6
      1.0000
                 1.0400
                             1.0812
                                        1.1236
                                                   1.1674
                                                               1.2125
                                                   1.0468
                                                              1.0615
      1.0000
                 1.0100
                             1.0211
                                        1.0333
  U = 2 \times 7
      1.0000
                 1.0400
                             1.0812
                                        1.1236
                                                   1.1674
                                                              1.2125
                                                                          1.2590
      1.0000
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                              1.0615
                                                                          1.0776
  U = 2 \times 8
                                                                          1.2590
                                                                                     1.3069
      1.0000
                 1.0400
                             1.0812
                                        1.1236
                                                   1.1674
                                                              1,2125
      1.0000
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                              1.0615
                                                                          1.0776
                                                                                     1.0950
  U = 2 \times 9
      1.0000
                 1.0400
                             1.0812
                                        1.1236
                                                   1.1674
                                                              1.2125
                                                                          1.2590
                                                                                     1.3069 ...
      1.0000
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                               1.0615
                                                                          1.0776
                                                                                     1.0950
  U = 2 \times 10
                 1.0400
                             1.0812
                                        1.1236
                                                                          1.2590
                                                                                     1.3069 ...
      1.0000
                                                   1.1674
                                                               1.2125
      1.0000
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                              1.0615
                                                                          1.0776
                                                                                     1.0950
  U = 2 \times 11
                             1.0812
                                                                                     1.3069 ...
      1.0000
                 1.0400
                                        1.1236
                                                   1.1674
                                                               1.2125
                                                                          1.2590
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                              1.0615
                                                                          1.0776
                                                                                     1.0950
      1.0000
  U = 2 \times 12
                                                                                     1.3069 ...
      1.0000
                 1.0400
                             1.0812
                                        1.1236
                                                   1.1674
                                                               1.2125
                                                                          1.2590
      1.0000
                  1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                               1.0615
                                                                          1.0776
                                                                                     1.0950
  U = 2 \times 13
      1.0000
                 1.0400
                             1.0812
                                        1.1236
                                                   1.1674
                                                               1.2125
                                                                          1.2590
                                                                                     1.3069 ...
      1.0000
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                              1.0615
                                                                          1.0776
                                                                                     1.0950
  U = 2 \times 14
      1.0000
                 1.0400
                             1.0812
                                        1.1236
                                                   1.1674
                                                               1.2125
                                                                          1.2590
                                                                                     1.3069 ...
      1.0000
                 1.0100
                             1.0211
                                        1.0333
                                                   1.0468
                                                               1.0615
                                                                          1.0776
                                                                                     1.0950
  U = 2 \times 15
                 1.0400
                             1.0812
                                                                                     1.3069 ...
      1.0000
                                        1.1236
                                                   1.1674
                                                               1.2125
                                                                          1.2590
```

1.0615

1.0776

1.0950

1.0468

1.0000

 $U = 2 \times 16$

1.0100

1.0211

1.0333

	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
		1.0100	1.0211	1.0555	1.0400	1.0013	1.0776	1.0930
U =	2×17							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×18							
Ū	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×19							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
11 -	2×20	_,,,	_,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,,,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
0 -		1 0400	1 0013	1 1226	1 1674	1 2125	1 2500	1 2000
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 • • •
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×21							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
		1.0100	1.0211	1.0555	1.0-00	1.0013	1.0770	1.0550
U =	2×22							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×23							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0012	1.0333	1.0468	1.0615	1.2336	1.0950
		T.0100	1.0711	1.0333	1.0400	T.00T2	1.0//0	1.0330
U =	2×24							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×25							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
		1.0100	1.0211	1.0333	1.0408	1.0013	1.0770	1.0530
U =	2×26							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×27							
Ū	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×28							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×29							
Ū	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×30							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 • • •
	1.0000	1.0100	1.0211	1.0333	1 0460			1.3003
U =	2×31				1.0468	1.0615	1.0776	1.0950
				_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.0468	1.0615	1.0776	
	1 aaaa	1 0400	1 0812					1.0950
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.0950 1.3069···
	1.0000	1.0400 1.0100	1.0812 1.0211					1.0950
U =	1.0000 2×32	1.0100	1.0211	1.1236 1.0333	1.1674 1.0468	1.2125 1.0615	1.2590 1.0776	1.0950 1.3069 · · · 1.0950
U =	1.0000			1.1236	1.1674	1.2125	1.2590	1.0950 1.3069···
U =	1.0000 2×32	1.0100	1.0211	1.1236 1.0333	1.1674 1.0468	1.2125 1.0615	1.2590 1.0776	1.0950 1.3069 · · · 1.0950
	1.0000 2×32 1.0000 1.0000	1.0100	1.0211 1.0812	1.1236 1.0333 1.1236	1.1674 1.0468 1.1674	1.2125 1.0615 1.2125	1.2590 1.0776 1.2590	1.0950 1.3069 · · · 1.0950 1.3069 · · ·
	1.0000 2×32 1.0000 1.0000 2×33	1.0100 1.0400 1.0100	1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950
	1.0000 2×32 1.0000 1.0000 2×33 1.0000	1.0100 1.0400 1.0100 1.0400	1.0211 1.0812 1.0211 1.0812	1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590	1.0950 1.3069 · · · 1.3069 · · · 1.3069 · · ·
U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 1.0000	1.0100 1.0400 1.0100	1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950
U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 1.0000 2×34	1.0100 1.0400 1.0100 1.0400 1.0100	1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.3069 · · · 1.0950
U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 1.0000	1.0100 1.0400 1.0100 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.3069 · · · 1.3069 · · ·
U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 1.0000 2×34	1.0100 1.0400 1.0100 1.0400 1.0100	1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.3069 · · · 1.0950
U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 1.0000 2×34 1.0000	1.0100 1.0400 1.0100 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · · 1.3069 · · · · 1.3069 · · · 1.3069 · · · 1.3069 · · ·
U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 1.0000 2×34 1.0000 1.0000 2×35	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0100	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · · 1.0950 1.3069 · · · 1.3069 · · · 1.3069 · · · 1.3069 · · ·
U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 1.0000 2×35 1.0000	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · · 1.3069 · · · · 1.3069 · · · · 1.3069 · · · · 1.3069 · · · · 1.3069 · · · ·
U = U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 1.0000 2×35 1.0000 1.0000	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0100	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · · 1.0950 1.3069 · · · 1.3069 · · · 1.3069 · · · 1.3069 · · ·
U = U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 1.0000 2×35 1.0000 1.0000 2×36	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950
U = U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 1.0000 2×35 1.0000 1.0000	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · · 1.3069 · · · · 1.3069 · · · · 1.3069 · · · · 1.3069 · · · · 1.3069 · · · ·
U = U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 1.0000 2×35 1.0000 1.0000 2×36	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950
U = U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 2×35 1.0000 1.0000 2×36 1.0000 1.0000	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · · 1.0950 1.3069 · · · · 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.3069 · · ·
U = U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 2×35 1.0000 1.0000 2×36 1.0000 1.0000 2×37	1.0100 1.0400 1.0400 1.0400 1.0400 1.0400 1.0400 1.0400 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · · 1.0950 1.3069 · · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · ·
U = U = U =	1.0000 2×32 1.0000 1.0000 2×33 1.0000 2×34 1.0000 2×35 1.0000 1.0000 2×36 1.0000 1.0000	1.0100 1.0400 1.0100 1.0400 1.0400 1.0400 1.0400 1.0400	1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211 1.0812 1.0211	1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236 1.0333 1.1236	1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674 1.0468 1.1674	1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615 1.2125 1.0615	1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776 1.2590 1.0776	1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950 1.3069 · · · 1.0950

U =	2×38							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×39							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×40							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×41							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×42							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×43							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×44							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×45							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×46							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×47							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×48							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×49							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×50							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×51							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	2×52		4 0040	4 4004		4 0405	4 0500	4 2040
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		1 0400	1 0010	1 1226	1 1671	1 2125	1 3500	1 3060
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		1.0400	1 0012	1 1226	1 1674	1 2125	1 2500	1.3069 · · ·
	1.0000		1.0812	1.1236	1.1674	1.2125	1.2590	
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		1.0400	1 0012	1 1226	1.1674	1 2125	1.2590	1.3069 · · ·
	1.0000		1.0812	1.1236		1.2125		
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		1 0400	1 0012	1 1006	1 1674	1 2125	1 2500	1 2060
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		1 0400	1 0012	1 1226	1 1674	1 2125	1 2500	1.3069
	1.0000 1.0000	1.0400	1.0812 1.0211	1.1236	1.1674	1.2125	1.2590	
U =		1.0100	1.0711	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1.0000	1.0400	1 0012	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	T.0000	1.0400	1.0812	1.1230	1.10/4	1.2122	1.2390	T. 2008

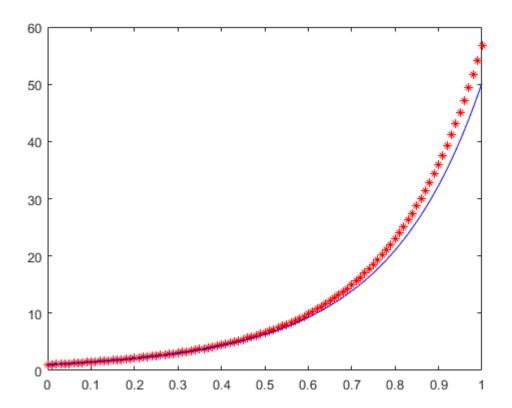
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
0 -	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
Ū	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
0 -	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =								
	1.0000 1.0000	1.0400 1.0100	1.0812 1.0211	1.1236 1.0333	1.1674 1.0468	1.2125 1.0615	1.2590 1.0776	1.3069 · · · 1.0950
U =	1.0000	1.0100	1.0211	1.0555	1.0400	1.0015	1.0770	1.0930
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
0 =	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1 0000	1 0400	1 0012	1 1226	1 1674	1 2125	1 2500	1 2060
	1.0000 1.0000	1.0400 1.0100	1.0812 1.0211	1.1236 1.0333	1.1674 1.0468	1.2125 1.0615	1.2590 1.0776	1.3069 · · · 1.0950
U =				_,,,,,				
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1 0000	1 0400	1 0013	1 1226	1 1674	1 2125	1 2500	1 2060
	1.0000 1.0000	1.0400 1.0100	1.0812 1.0211	1.1236 1.0333	1.1674 1.0468	1.2125 1.0615	1.2590 1.0776	1.3069 · · · 1.0950
U =								
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
_	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1 0000	1 0400	1 0013	1 1226	1 1674	1 2125	1 2500	1 2060
	1.0000 1.0000	1.0400 1.0100	1.0812 1.0211	1.1236 1.0333	1.1674 1.0468	1.2125 1.0615	1.2590 1.0776	1.3069 · · · 1.0950
U =				_,,,,,				
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
U =	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
-	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =								

	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
		1.0100	1.0211	1.0555	1.0400	1.0013	1.0770	1.0550
U =						4 0405	4 0500	4 2040
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
		1.0100	1.0211	1.0555	1.0400	1.0013	1.0770	1.0550
U =								
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =								
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
Ū	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =								
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =							-	
0	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =				_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,,,,		
0 -	1.0000	1 0400	1 0012	1.1236	1 1674	1 2125	1 2500	1 2060
		1.0400	1.0812		1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		1.0100	1.0211	1.0555	2.0.00	1.0015	2.0770	2.0330
0 -		1 0400	1 0012	1 1226	1 1674	1 2125	1 2500	1 2000
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 • • •
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		_,,,	_,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
0 -		1 0400	1 0012	1 1226	1 1674	1 2125	1 2500	1 2060
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =		–						
0 -		1 0400	1 0013	1 1226	1 1674	1 2125	1 2500	1 2060
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069 · · ·
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =								
0 =		1 0400	1 0013	1 1226	1 1674	1 2125	1 2500	1 2000
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =	:							
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950
U =				0555			,	
U =		1 0400	1 0013	1 1226	1 1674	1 2125	1 2500	1 2000
	1.0000	1.0400	1.0812	1.1236	1.1674	1.2125	1.2590	1.3069
	1.0000	1.0100	1.0211	1.0333	1.0468	1.0615	1.0776	1.0950

5

plot(t,U(1,:))

```
hold on
plot(t,u1,'*r')
plot(t,U(1,:),'-b')
hold off
```



```
figure
hold on
plot(t,u2,'*r')
plot(t,U(2,:),'-g')
hold off
```

