```csharp
1  using System;
2  using Matrix_0;
3  // Ray W. Clough & Joseph Penzien "Dynamics of Structures" P202-203
4
5  namespace ConsoleApp38
6  {
7      internal class Program
8      {
9          static void Main(string[] args)
10         {
11
12 // 初始值InitVal(速度，變位)。
13 double[,] InitVal = { {0}, {9}, {0}, {0.5}, {0.4}, {0.3} };
14
15 // 建構系統矩陣A。
16 double[,] M = { { 1, 0, 0 }, { 0, 1.5, 0 }, { 0, 0, 2 } };
17 double[,] K = { {600, -600, 0}, {-600, 1800, -1200 }, {0, -1200,
    3000} };
18 ReMatrix C = (new Zero(3)).GetMatrix;
19 MKCMatrix mkc = new MKCMatrix(M, K, C);
20 ReMatrix A = mkc.Matrix;
21
22 // 系統特徵值和特徵向量V, Q。
23 EIG eig = new EIG(A);
24 CxMatrix D = eig.CxMatrixD;
25 CxMatrix V = eig.CxVector;
26 CxMatrix Q = eig.CxMatrixQ;
27
28 // 系統係數向量d
29 CxToHexp Hexp = new CxToHexp(D, Q, 0);
30 CxMatrix MatTemp = Hexp.GetCxMatrix;
31 CxMatrix d = ~MatTemp * InitVal;
32
33 // 列印系統與狀態參數V,Q,d。
34 Console.Write("\n****{0,5}系{0,5}統{0,5}與{0,5}狀{0,5}態{0,5}參{0,5}
    數{0,5}****\n", "");
35
36 Console.Write("\n***{0,5}系統特徵值V{0,5}***\n{1}\n", "", new PR
    (V));
37 Console.Write("\n***{0,5}系統特徵向量Q{0,5}***\n{1}\n", "", new PR
    (Q));
38 Console.Write("\n***{0,5}係數向量d{0,5}***\n{1}\n", "", new PR(d));
39
40 // 狀態響應。速度，變位，加速度。(t = 40秒)
41 double step = 0.5;
```

```csharp
42  int iRow = (int)(40 / step + 1);
43  int iCol = M.GetLength(1) + 1;
44  ReMatrix Disp = new ReMatrix(iRow, iCol);
45  ReMatrix Vel = new ReMatrix(iRow, iCol);
46  ReMatrix Acc = new ReMatrix(iRow, iCol);
47  for (int i = 0; i != iRow; i++)
48  {
49      double t = step * i;
50
51      Hexp = new CxToHexp(D, Q, t);
52      MatTemp = Hexp.GetCxMatrix;
53      CxMatrix yh_Cx = MatTemp * d;
54      ReMatrix yh_Re = (ReMatrix)yh_Cx;
55      ReMatrix yhDot_Re = A * yh_Re;
56
57      // 加速度Acc。
58      Acc.Matrix[i, 0] = t;
59      Acc.Matrix[i, 1] = yhDot_Re.Matrix[0, 0];
60      Acc.Matrix[i, 2] = yhDot_Re.Matrix[1, 0];
61      Acc.Matrix[i, 3] = yhDot_Re.Matrix[2, 0];
62
63      // 速度Vel。
64      Vel.Matrix[i, 0] = t;
65      Vel.Matrix[i, 1] = yh_Re.Matrix[0, 0];
66      Vel.Matrix[i, 2] = yh_Re.Matrix[1, 0];
67      Vel.Matrix[i, 3] = yh_Re.Matrix[2, 0];
68
69      // 位移Disp。
70      Disp.Matrix[i, 0] = t;
71      Disp.Matrix[i, 1] = yh_Re.Matrix[3, 0];
72      Disp.Matrix[i, 2] = yh_Re.Matrix[4, 0];
73      Disp.Matrix[i, 3] = yh_Re.Matrix[5, 0];
74
75  }
76
77  // 列印標題。
78  Console.Write("\n****{0,10}狀{0,5}態{0,5}響{0,5}應{0,10}****\n",
        "");
79
80  // 列印狀態響應(節點的變位，速度，和加速)。
81  Console.Write("\n{0,5}***位移反應量***{0,5}\n{0,8}時間(秒)" +
82      "{0,8}第0點位移{0,8}第1點位移{0,8}第2點位移\n\n{1}",
83      "", new PR(Disp));
84  Console.Write("\n{0,5}***速度反應量***{0,5}\n{0,8}時間(秒)" +
85      "{0,8}第0點速度{0,8}第1點速度{0,8}第2點速度\n\n{1}",
```

```
86        ″″, new PR(Vel));
87   Console.Write("\n***{0,5}加速度反應量{0,5}***\n{0,8}時間(秒)″ +
88        ″{0,7}第0點加速度{0,7}第1點加速度{0,7}第2點加速度\n\n{1}″,
89        ″″, new PR(Acc));
90
91   // 分別列印時間、節點變位、速度、和加速度等序列。
92   Console.Write("\n時間序列 :\n{0}\n", new PR4(Disp, 0));
93
94   Console.Write("\n第0點變位序列 :\n{0}\n", new PR4(Disp, 1));
95   Console.Write("\n第1點變位序列 :\n{0}\n", new PR4(Disp, 2));
96   Console.Write("\n第2點變位序列 :\n{0}\n", new PR4(Disp, 3));
97   Console.Write("\n第0點速度序列 :\n{0}\n", new PR4(Vel, 1));
98   Console.Write("\n第1點速度序列 :\n{0}\n", new PR4(Vel, 2));
99   Console.Write("\n第2點速度序列 :\n{0}\n", new PR4(Vel, 3));
100  Console.Write("\n第0點加速度序列 :\n{0}\n", new PR4(Acc, 1));
101  Console.Write("\n第1點嗲速度序列 :\n{0}\n", new PR4(Acc, 2));
102  Console.Write("\n第2點加速度序列 :\n{0}\n", new PR4(Acc, 3));
103          }
104      }
105  }
106
107  /*
108  ****    系    統    與    狀    態    參    數    ****
109
110  ***      系統特徵值V      ***
111          0.00000  +       46.09947i
112          0.00000  -       46.09947i
113          0.00000  +       31.04770i
114          0.00000  -       31.04770i
115          0.00000  +       14.52167i
116          0.00000  -       14.52167i
117
118  ***      系統特徵向量Q       ***
119    0.27298 + 0.00000i,    0.27298 + 0.00000i,    0.73905 + 0.00000i,
120    0.73905 + 0.00000i,    0.81141 + 0.00000i,    0.81141 + 0.00000i
121
122   -0.69390 + 0.00000i,   -0.69390 + 0.00000i,   -0.44830 + 0.00000i,
123   -0.44830 + 0.00000i,    0.52623 + 0.00000i,    0.52623 + 0.00000i
124
125    0.66597 + 0.00000i,    0.66597 + 0.00000i,   -0.50180 + 0.00000i,
126   -0.50180 + 0.00000i,    0.24492 + 0.00000i,    0.24492 + 0.00000i
127
128    0.00000 - 0.00592i,    0.00000 + 0.00592i,    0.00000 - 0.02380i,
129    0.00000 + 0.02380i,    0.00000 - 0.05588i,    0.00000 + 0.05588i
130
```

```
131    0.00000 + 0.01505i,    0.00000 - 0.01505i,    0.00000 + 0.01444i,
132    0.00000 - 0.01444i,    0.00000 - 0.03624i,    0.00000 + 0.03624i
133
134    0.00000 - 0.01445i,    0.00000 + 0.01445i,    0.00000 + 0.01616i,
135    0.00000 - 0.01616i,    0.00000 - 0.01687i,    0.00000 + 0.01687i
136
137  ***      係數向量d      ***
138        -2.78170   +        1.63905i
139        -2.78170   -        1.63905i
140        -2.23945   -        2.30387i
141        -2.23945   +        2.30387i
142         2.97558   +        5.28200i
143         2.97558   -        5.28200i
144
145  ****         狀    態    響    應         ****
146      ***位移反應量***
147        時間(秒)        第0點位移        第1點位移        第2點位移
148        0.00000         0.50000         0.40000         0.30000
149        0.50000         0.71318         0.29042         0.16971
150        1.00000        -0.01535         0.19230        -0.02364
151        1.50000        -0.45288        -0.39900        -0.13435
152        2.00000        -0.64474        -0.47086        -0.14171
153        2.50000        -0.28078        -0.03707        -0.14830
154        3.00000         0.46792         0.19118         0.13277
155        3.50000         0.62626         0.42805         0.30532
156        4.00000         0.40897         0.26710        -0.05157
157        4.50000        -0.38328        -0.15425         0.03183
158        5.00000        -0.51417        -0.57092        -0.23664
159        5.50000        -0.64593        -0.11707        -0.13498
160        6.00000         0.31567        -0.03181        -0.02128
161        6.50000         0.50226         0.44260         0.35189
162        7.00000         0.66808         0.36601        -0.02597
163        7.50000        -0.13772         0.04499         0.12603
164        8.00000        -0.41434        -0.50809        -0.19846
165        8.50000        -0.77276        -0.24203        -0.20482
166        9.00000        -0.02862        -0.17046        -0.07039
167        9.50000         0.43813         0.28498         0.25114
168       10.00000         0.66708         0.50256         0.08316
169       10.50000         0.26517         0.15105         0.11488
170       11.00000        -0.35858        -0.29612        -0.03524
171       11.50000        -0.67015        -0.37204        -0.32482
172       12.00000        -0.44939        -0.23447        -0.04575
173       12.50000         0.36402         0.03065         0.07631
174       13.00000         0.50896         0.59078         0.18753
175       13.50000         0.63502         0.22004         0.08130
```

176	14.00000	−0.22135	−0.05398	0.13428
177	14.50000	−0.49983	−0.39754	−0.37623
178	15.00000	−0.72605	−0.30203	−0.05364
179	15.50000	0.14465	−0.18758	−0.04114
180	16.00000	0.36380	0.52861	0.17253
181	16.50000	0.77542	0.32159	0.12000
182	17.00000	0.09183	0.10459	0.20183
183	17.50000	−0.38986	−0.25446	−0.28274
184	18.00000	−0.73472	−0.40708	−0.14590
185	18.50000	−0.23415	−0.30140	−0.04495
186	19.00000	0.28227	0.31084	0.02365
187	19.50000	0.66356	0.43831	0.22214
188	20.00000	0.49849	0.16925	0.17619
189	20.50000	−0.30366	−0.00127	−0.09758
190	21.00000	−0.55408	−0.48213	−0.25362
191	21.50000	−0.60562	−0.35351	−0.00270
192	22.00000	0.15876	0.04706	−0.15182
193	22.50000	0.45226	0.46997	0.27810
194	23.00000	0.78533	0.21546	0.16001
195	23.50000	−0.10719	0.22795	0.04699
196	24.00000	−0.36405	−0.42311	−0.25855
197	24.50000	−0.76245	−0.42252	−0.01835
198	25.00000	−0.11865	−0.13708	−0.23278
199	25.50000	0.29610	0.34019	0.19659
200	26.00000	0.80312	0.29549	0.22468
201	26.50000	0.24433	0.34582	0.07350
202	27.00000	−0.25142	−0.20646	−0.12441
203	27.50000	−0.65016	−0.51376	−0.10724
204	28.00000	−0.50216	−0.21052	−0.20479
205	28.50000	0.19418	0.08890	0.00906
206	29.00000	0.60269	0.36253	0.32319
207	29.50000	0.61256	0.37901	0.03108
208	30.00000	−0.13576	0.07098	0.05668
209	30.50000	−0.40656	−0.54002	−0.17303
210	31.00000	−0.79244	−0.24212	−0.16254
211	31.50000	0.02024	−0.15274	−0.15608
212	32.00000	0.36711	0.31453	0.33823
213	32.50000	0.78591	0.41134	0.02859
214	33.00000	0.10644	0.27548	0.15495
215	33.50000	−0.20736	−0.41590	−0.11298
216	34.00000	−0.81957	−0.29981	−0.19399
217	34.50000	−0.29780	−0.28058	−0.20261
218	35.00000	0.21674	0.11094	0.21345
219	35.50000	0.67955	0.47012	0.10470
220	36.00000	0.46223	0.35539	0.13277

行	時間(秒)	第0點速度	第1點速度	第2點速度
221	36.50000	−0.08838	−0.16199	0.06416
222	37.00000	−0.60420	−0.35894	−0.27565
223	37.50000	−0.65375	−0.30318	−0.15893
224	38.00000	0.10075	−0.16704	0.02269
225	38.50000	0.41093	0.48451	0.17996
226	39.00000	0.75245	0.36947	0.07282
227	39.50000	0.06255	0.09750	0.23829
228	40.00000	−0.32576	−0.32351	−0.29580
229				
230	***速度反應量***			
231	時間(秒)	第0點速度	第1點速度	第2點速度
232	0.00000	0.00000	9.00000	0.00000
233	0.50000	0.99358	−9.08588	−0.24465
234	1.00000	−14.04659	−3.77331	0.04379
235	1.50000	−3.44336	−3.07247	−8.86579
236	2.00000	−0.75542	0.69482	7.61280
237	2.50000	14.08332	2.94614	−0.19173
238	3.00000	1.78250	11.87037	1.61119
239	3.50000	5.18683	−6.55677	0.57594
240	4.00000	−11.97648	−3.56951	0.33584
241	4.50000	−7.42981	−3.60689	−8.71605
242	5.00000	−2.55209	−3.19460	4.62928
243	5.50000	8.97992	3.15400	1.57246
244	6.00000	7.20647	10.81837	−0.55501
245	6.50000	4.83712	−1.15846	4.53819
246	7.00000	−4.37584	−4.90792	−1.71387
247	7.50000	−13.29732	−1.09006	−5.76174
248	8.00000	−1.44402	−8.49277	−0.08125
249	8.50000	0.87613	3.63960	4.16419
250	9.00000	11.82981	8.17069	−3.76891
251	9.50000	3.99124	3.78712	8.21829
252	10.00000	3.11170	−4.96532	−2.74508
253	10.50000	−15.47425	1.29217	−3.63336
254	11.00000	−2.26484	−11.44975	−2.59615
255	11.50000	−4.28417	1.51922	4.10922
256	12.00000	10.56982	6.99733	−4.58883
257	12.50000	6.66775	5.10658	8.31448
258	13.00000	5.86182	−1.74449	−0.25186
259	13.50000	−10.87514	1.49846	−4.55765
260	14.00000	−6.87280	−10.31943	−1.16832
261	14.50000	−4.40982	−3.61251	0.65962
262	15.00000	3.29085	7.72438	−2.65327
263	15.50000	11.88790	2.91551	5.11949
264	16.00000	4.76194	3.33953	4.47562
265	16.50000	−2.42353	0.79801	−6.94293

266	17.00000	-11.64520	-6.98571	1.98944
267	17.50000	-2.92726	-8.82065	-3.19132
268	18.00000	-4.79129	7.82960	-1.00160
269	18.50000	14.40031	0.26079	2.09249
270	19.00000	4.58335	6.59754	7.57409
271	19.50000	3.79427	2.13052	-7.24410
272	20.00000	-11.23429	-4.73813	3.21249
273	20.50000	-4.37452	-10.64943	-3.81547
274	21.00000	-8.37729	4.92784	-2.58342
275	21.50000	10.36199	-0.30185	2.02033
276	22.00000	8.13716	5.74779	6.68191
277	22.50000	4.67438	6.50756	-4.03420
278	23.00000	-4.48876	-4.67228	1.41083
279	23.50000	-8.88479	-8.58901	-0.78948
280	24.00000	-7.30524	-0.20438	-6.82484
281	24.50000	1.73755	0.58493	4.00030
282	25.00000	12.75050	2.15261	3.40915
283	25.50000	2.86816	11.48012	0.22972
284	26.00000	3.98552	-4.67492	-0.81799
285	26.50000	-11.72331	-5.42986	2.73335
286	27.00000	-6.08102	-4.06383	-10.06475
287	27.50000	-5.45632	0.05061	4.55835
288	28.00000	13.01669	-0.80522	1.50514
289	28.50000	3.24011	13.43149	1.72437
290	29.00000	8.39437	-2.07888	-0.19992
291	29.50000	-8.44189	-4.14985	3.51208
292	30.00000	-8.34626	-3.90846	-9.41414
293	30.50000	-7.19799	-3.46894	1.65029
294	31.00000	6.82397	-1.39704	2.75138
295	31.50000	7.01803	11.24006	-0.67859
296	32.00000	7.50921	2.99195	3.42241
297	32.50000	0.01457	-4.76858	1.72298
298	33.00000	-12.47368	-0.52077	-5.81830
299	33.50000	-5.23973	-8.08954	-2.88995
300	34.00000	-1.98867	-1.23597	5.09845
301	34.50000	10.16185	7.33348	-4.25444
302	35.00000	5.37754	7.34067	6.72366
303	35.50000	7.90846	-4.60960	0.63146
304	36.00000	-13.20756	2.75227	-2.97038
305	36.50000	-4.56865	-10.16003	-5.18460
306	37.00000	-7.33007	-3.15609	5.08134
307	37.50000	7.79511	5.00452	-5.43118
308	38.00000	6.31799	7.86043	6.39339
309	38.50000	10.43097	-1.63303	2.81528
310	39.00000	-7.56910	3.60864	-3.28042

行	時間(秒)			
311	39.50000	−7.45016	−7.98313	−3.44052
312	40.00000	−6.92777	−7.67739	1.82616
313				

行	*** 加速度反應量	***		
314				
315	時間(秒)	第0點加速度	第1點加速度	第2點加速度 ↵
316	0.00000	−60.00000	−40.00000	−210.00000
317	0.50000	−253.65704	72.53658	−80.31146
318	1.00000	124.58784	−255.81091	150.84298
319	1.50000	32.33061	190.16483	−37.87359
320	2.00000	104.32881	193.76735	−69.95062
321	2.50000	146.22697	−186.46438	200.20044
322	3.00000	−166.04225	63.96391	−84.44032
323	3.50000	−118.92881	−18.89619	−201.15310
324	4.00000	−85.12563	−198.18589	237.61900
325	4.50000	137.41762	57.24768	−140.28916
326	5.00000	−34.04558	290.12097	12.40533
327	5.50000	317.31255	−225.86937	132.23123
328	6.00000	−208.49007	147.41301	12.84068
329	6.50000	−35.79677	−48.70174	−262.27770
330	7.00000	−181.24051	−192.76250	258.56944
331	7.50000	109.62647	−8.25181	−162.05566
332	8.00000	−56.24746	285.19775	−7.15825
333	8.50000	318.43992	−182.52617	162.01390
334	9.00000	−85.10239	136.79493	3.30209
335	9.50000	−91.89025	34.18751	−205.72180
336	10.00000	−98.71229	−269.71310	176.79921
337	10.50000	−68.47478	16.71956	−81.69619
338	11.00000	37.47981	183.71560	−124.81005
339	11.50000	178.86692	−81.46940	264.00674
340	12.00000	128.95448	65.00480	−72.05710
341	12.50000	−200.02294	169.87403	−96.06918
342	13.00000	49.08788	−355.32260	73.17046
343	13.50000	−248.98601	55.00270	10.06751
344	14.00000	100.42107	83.66610	−233.81590
345	14.50000	61.37613	−23.86646	325.81623
346	15.00000	254.41000	29.10716	−100.75919
347	15.50000	−199.34095	250.04824	−50.83884
348	16.00000	98.88729	−350.79511	58.38004
349	16.50000	−272.29994	20.26789	12.94556
350	17.00000	7.65692	72.69373	−240.00014
351	17.50000	81.24360	−76.79000	271.43661
352	18.00000	196.58236	77.88756	−25.39264
353	18.50000	−40.35313	232.06420	−113.41902
354	19.00000	17.13673	−241.17438	151.02933

355	19.50000	-135.15219	-82.83803	-70.21759
356	20.00000	-197.54394	137.25163	-162.73926
357	20.50000	181.43296	-198.00283	145.60555
358	21.00000	43.16998	154.02475	91.15648
359	21.50000	151.26532	179.80380	-208.05766
360	22.00000	-67.02081	-114.41938	255.96049
361	22.50000	10.62764	-160.57835	-135.17300
362	23.00000	-341.92282	183.58765	-110.73412
363	23.50000	201.08198	-278.81583	66.27627
364	24.00000	-35.43744	155.27789	133.95116
365	24.50000	203.95440	187.36944	-225.98940
366	25.00000	-11.05820	-69.18616	266.92086
367	25.50000	26.45271	-132.51217	-90.77657
368	26.00000	-304.57551	146.40216	-159.72804
369	26.50000	60.89364	-258.45619	97.24833
370	27.00000	26.97604	47.65532	62.73767
371	27.50000	81.84166	270.64791	-147.38660
372	28.00000	174.98420	-112.07178	180.87322
373	28.50000	-63.16467	-21.76644	39.75532
374	29.00000	-144.09767	64.58988	-267.26021
375	29.50000	-140.12942	-184.92503	180.78449
376	30.00000	124.04544	-94.14112	-42.42856
377	30.50000	-80.07282	346.97099	-64.46491
378	31.00000	330.19124	-156.46794	98.54444
379	31.50000	-103.78640	66.51248	142.48432
380	32.00000	-31.54862	39.99667	-318.63457
381	32.50000	-224.74137	-156.37633	203.92636
382	33.00000	101.42476	-164.03715	-67.14171
383	33.50000	-125.12014	325.75203	-80.07636
384	34.00000	311.85534	-123.24262	111.09402
385	34.50000	10.33386	55.48403	135.57202
386	35.00000	-63.48027	124.32884	-253.61449
387	35.50000	-125.65718	-208.56431	125.02080
388	36.00000	-64.09873	-135.36474	14.07744
389	36.50000	-44.16109	210.35488	-193.42675
390	37.00000	147.15568	-31.47787	198.12006
391	37.50000	210.33980	-24.82217	56.48001
392	38.00000	-160.67634	258.90308	-134.25879
393	38.50000	44.14547	-273.07237	20.76993
394	39.00000	-229.78576	-84.13502	112.45940
395	39.50000	20.96806	98.65271	-298.93300
396	40.00000	1.35128	21.26411	249.59878
397				
398	時間序列 :			
399	0.0000,	0.5000,	1.0000,	1.5000,	2.0000,

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400         2.5000,        3.0000,        3.5000,        4.0000,        4.5000,
401         5.0000,        5.5000,        6.0000,        6.5000,        7.0000,
402         7.5000,        8.0000,        8.5000,        9.0000,        9.5000,
403        10.0000,       10.5000,       11.0000,       11.5000,       12.0000,
404        12.5000,       13.0000,       13.5000,       14.0000,       14.5000,
405        15.0000,       15.5000,       16.0000,       16.5000,       17.0000,
406        17.5000,       18.0000,       18.5000,       19.0000,       19.5000,
407        20.0000,       20.5000,       21.0000,       21.5000,       22.0000,
408        22.5000,       23.0000,       23.5000,       24.0000,       24.5000,
409        25.0000,       25.5000,       26.0000,       26.5000,       27.0000,
410        27.5000,       28.0000,       28.5000,       29.0000,       29.5000,
411        30.0000,       30.5000,       31.0000,       31.5000,       32.0000,
412        32.5000,       33.0000,       33.5000,       34.0000,       34.5000,
413        35.0000,       35.5000,       36.0000,       36.5000,       37.0000,
414        37.5000,       38.0000,       38.5000,       39.0000,       39.5000,
415        40.0000,
416
417    第0點變位序列 ：
418         0.5000,        0.7132,       -0.0153,       -0.4529,       -0.6447,
419        -0.2808,        0.4679,        0.6263,        0.4090,       -0.3833,
420        -0.5142,       -0.6459,        0.3157,        0.5023,        0.6681,
421        -0.1377,       -0.4143,       -0.7728,       -0.0286,        0.4381,
422         0.6671,        0.2652,       -0.3586,       -0.6702,       -0.4494,
423         0.3640,        0.5090,        0.6350,       -0.2214,       -0.4998,
424        -0.7260,        0.1447,        0.3638,        0.7754,        0.0918,
425        -0.3899,       -0.7347,       -0.2341,        0.2823,        0.6636,
426         0.4985,       -0.3037,       -0.5541,       -0.6056,        0.1588,
427         0.4523,        0.7853,       -0.1072,       -0.3640,       -0.7624,
428        -0.1187,        0.2961,        0.8031,        0.2443,       -0.2514,
429        -0.6502,       -0.5022,        0.1942,        0.6027,        0.6126,
430        -0.1358,       -0.4066,       -0.7924,        0.0202,        0.3671,
431         0.7859,        0.1064,       -0.2074,       -0.8196,       -0.2978,
432         0.2167,        0.6795,        0.4622,       -0.0884,       -0.6042,
433        -0.6537,        0.1008,        0.4109,        0.7524,        0.0626,
434        -0.3258,
435
436    第1點變位序列 ：
437         0.4000,        0.2904,        0.1923,       -0.3990,       -0.4709,
438        -0.0371,        0.1912,        0.4280,        0.2671,       -0.1542,
439        -0.5709,       -0.1171,       -0.0318,        0.4426,        0.3660,
440         0.0450,       -0.5081,       -0.2420,       -0.1705,        0.2850,
441         0.5026,        0.1510,       -0.2961,       -0.3720,       -0.2345,
442         0.0306,        0.5908,        0.2200,       -0.0540,       -0.3975,
443        -0.3020,       -0.1876,        0.5286,        0.3216,        0.1046,
444        -0.2545,       -0.4071,       -0.3014,        0.3108,        0.4383,
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445	0.1692,	−0.0013,	−0.4821,	−0.3535,	0.0471,
446	0.4700,	0.2155,	0.2279,	−0.4231,	−0.4225,
447	−0.1371,	0.3402,	0.2955,	0.3458,	−0.2065,
448	−0.5138,	−0.2105,	0.0889,	0.3625,	0.3790,
449	0.0710,	−0.5400,	−0.2421,	−0.1527,	0.3145,
450	0.4113,	0.2755,	−0.4159,	−0.2998,	−0.2806,
451	0.1109,	0.4701,	0.3554,	−0.1620,	−0.3589,
452	−0.3032,	−0.1670,	0.4845,	0.3695,	0.0975,
453	−0.3235,				
454					
455	第2點變位序列 :				
456	0.3000,	0.1697,	−0.0236,	−0.1344,	−0.1417,
457	−0.1483,	0.1328,	0.3053,	−0.0516,	0.0318,
458	−0.2366,	−0.1350,	−0.0213,	0.3519,	−0.0260,
459	0.1260,	−0.1985,	−0.2048,	−0.0704,	0.2511,
460	0.0832,	0.1149,	−0.0352,	−0.3248,	−0.0457,
461	0.0763,	0.1875,	0.0813,	0.1343,	−0.3762,
462	−0.0536,	−0.0411,	0.1725,	0.1200,	0.2018,
463	−0.2827,	−0.1459,	−0.0449,	0.0236,	0.2221,
464	0.1762,	−0.0976,	−0.2536,	−0.0027,	−0.1518,
465	0.2781,	0.1600,	0.0470,	−0.2585,	−0.0183,
466	−0.2328,	0.1966,	0.2247,	0.0735,	−0.1244,
467	−0.1072,	−0.2048,	0.0091,	0.3232,	0.0311,
468	0.0567,	−0.1730,	−0.1625,	−0.1561,	0.3382,
469	0.0286,	0.1550,	−0.1130,	−0.1940,	−0.2026,
470	0.2135,	0.1047,	0.1328,	0.0642,	−0.2757,
471	−0.1589,	0.0227,	0.1800,	0.0728,	0.2383,
472	−0.2958,				
473					
474	第0點速度序列 :				
475	0.0000,	0.9936,	−14.0466,	−3.4434,	−0.7554,
476	14.0833,	1.7825,	5.1868,	−11.9765,	−7.4298,
477	−2.5521,	8.9799,	7.2065,	4.8371,	−4.3758,
478	−13.2973,	−1.4440,	0.8761,	11.8298,	3.9912,
479	3.1117,	−15.4743,	−2.2648,	−4.2842,	10.5698,
480	6.6677,	5.8618,	−10.8751,	−6.8728,	−4.4098,
481	3.2909,	11.8879,	4.7619,	−2.4235,	−11.6452,
482	−2.9273,	−4.7913,	14.4003,	4.5833,	3.7943,
483	−11.2343,	−4.3745,	−8.3773,	10.3620,	8.1372,
484	4.6744,	−4.4888,	−8.8848,	−7.3052,	1.7376,
485	12.7505,	2.8682,	3.9855,	−11.7233,	−6.0810,
486	−5.4563,	13.0167,	3.2401,	8.3944,	−8.4419,
487	−8.3463,	−7.1980,	6.8240,	7.0180,	7.5092,
488	0.0146,	−12.4737,	−5.2397,	−1.9887,	10.1619,
489	5.3775,	7.9085,	−13.2076,	−4.5686,	−7.3301,

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490      7.7951,         6.3180,        10.4310,        -7.5691,        -7.4502,
491     -6.9278,
492
493  第1點速度序列 :
494      9.0000,        -9.0859,        -3.7733,        -3.0725,         0.6948,
495      2.9461,        11.8704,        -6.5568,        -3.5695,        -3.6069,
496     -3.1946,         3.1540,        10.8184,        -1.1585,        -4.9079,
497     -1.0901,        -8.4928,         3.6396,         8.1707,         3.7871,
498     -4.9653,         1.2922,       -11.4498,         1.5192,         6.9973,
499      5.1066,        -1.7445,         1.4985,       -10.3194,        -3.6125,
500      7.7244,         2.9155,         3.3395,         0.7980,        -6.9857,
501     -8.8207,         7.8296,         0.2608,         6.5975,         2.1305,
502     -4.7381,       -10.6494,         4.9278,        -0.3019,         5.7478,
503      6.5076,        -4.6723,        -8.5890,        -0.2044,         0.5849,
504      2.1526,        11.4801,        -4.6749,        -5.4299,        -4.0638,
505      0.0506,        -0.8052,        13.4315,        -2.0789,        -4.1499,
506     -3.9085,        -3.4689,        -1.3970,        11.2401,         2.9920,
507     -4.7686,        -0.5208,        -8.0895,        -1.2360,         7.3335,
508      7.3407,        -4.6096,         2.7523,       -10.1600,        -3.1561,
509      5.0045,         7.8604,        -1.6330,         3.6086,        -7.9831,
510     -7.6774,
511
512  第2點速度序列 :
513      0.0000,        -0.2446,         0.0438,        -8.8658,         7.6128,
514     -0.1917,         1.6112,         0.5759,         0.3358,        -8.7160,
515      4.6293,         1.5725,        -0.5550,         4.5382,        -1.7139,
516     -5.7617,        -0.0813,         4.1642,        -3.7689,         8.2183,
517     -2.7451,        -3.6334,        -2.5961,         4.1092,        -4.5888,
518      8.3145,        -0.2519,        -4.5576,        -1.1683,         0.6596,
519     -2.6533,         5.1195,         4.4756,        -6.9429,         1.9894,
520     -3.1913,        -1.0016,         2.0925,         7.5741,        -7.2441,
521      3.2125,        -3.8155,        -2.5834,         2.0203,         6.6819,
522     -4.0342,         1.4108,        -0.7895,        -6.8248,         4.0003,
523      3.4091,         0.2297,        -0.8180,         2.7333,       -10.0648,
524      4.5583,         1.5051,         1.7244,        -0.1999,         3.5121,
525     -9.4141,         1.6503,         2.7514,        -0.6786,         3.4224,
526      1.7230,        -5.8183,        -2.8899,         5.0984,        -4.2544,
527      6.7237,         0.6315,        -2.9704,        -5.1846,         5.0813,
528     -5.4312,         6.3934,         2.8153,        -3.2804,        -3.4405,
529      1.8262,
530
531  第0點加速度序列 :
532    -60.0000,      -253.6570,       124.5878,        32.3306,       104.3288,
533    146.2270,      -166.0423,      -118.9288,       -85.1256,       137.4176,
534    -34.0456,       317.3125,      -208.4901,       -35.7968,      -181.2405,
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535      109.6265,      -56.2475,      318.4399,      -85.1024,      -91.8903,
536      -98.7123,      -68.4748,       37.4798,      178.8669,      128.9545,
537     -200.0229,       49.0879,     -248.9860,      100.4211,       61.3761,
538      254.4100,     -199.3410,       98.8873,     -272.2999,        7.6569,
539       81.2436,      196.5824,      -40.3531,       17.1367,     -135.1522,
540     -197.5439,      181.4330,       43.1700,      151.2653,      -67.0208,
541       10.6276,     -341.9228,      201.0820,      -35.4374,      203.9544,
542      -11.0582,       26.4527,     -304.5755,       60.8936,       26.9760,
543       81.8417,      174.9842,      -63.1647,     -144.0977,     -140.1294,
544      124.0454,      -80.0728,      330.1912,     -103.7864,      -31.5486,
545     -224.7414,      101.4248,     -125.1201,      311.8553,       10.3339,
546      -63.4803,     -125.6572,      -64.0987,      -44.1611,      147.1557,
547      210.3398,     -160.6763,       44.1455,     -229.7858,       20.9681,
548        1.3513,
549
550  第1點嗲速度序列 :
551      -40.0000,       72.5366,     -255.8109,      190.1648,      193.7673,
552     -186.4644,       63.9639,      -18.8962,     -198.1859,       57.2477,
553      290.1210,     -225.8694,      147.4130,      -48.7017,     -192.7625,
554       -8.2518,      285.1977,     -182.5262,      136.7949,       34.1875,
555     -269.7131,       16.7196,      183.7156,      -81.4694,       65.0048,
556      169.8740,     -355.3226,       55.0027,       83.6661,      -23.8665,
557       29.1072,      250.0482,     -350.7951,       20.2679,       72.6937,
558      -76.7900,       77.8876,      232.0642,     -241.1744,      -82.8380,
559      137.2516,     -198.0028,      154.0247,      179.8038,     -114.4194,
560     -160.5784,      183.5876,     -278.8158,      155.2779,      187.3694,
561      -69.1862,     -132.5122,      146.4022,     -258.4562,       47.6553,
562      270.6479,     -112.0718,      -21.7664,       64.5899,     -184.9250,
563      -94.1411,      346.9710,     -156.4679,       66.5125,       39.9967,
564     -156.3763,     -164.0372,      325.7520,     -123.2426,       55.4840,
565      124.3288,     -208.5643,     -135.3647,      210.3549,      -31.4779,
566      -24.8222,      258.9031,     -273.0724,      -84.1350,       98.6527,
567       21.2641,
568
569  第2點加速度序列 :
570     -210.0000,      -80.3115,      150.8430,      -37.8736,      -69.9506,
571      200.2004,      -84.4403,     -201.1531,      237.6190,     -140.2892,
572       12.4053,      132.2312,       12.8407,     -262.2777,      258.5694,
573     -162.0557,       -7.1583,      162.0139,        3.3021,     -205.7218,
574      176.7992,      -81.6962,     -124.8101,      264.0067,      -72.0571,
575      -96.0692,       73.1705,       10.0675,     -233.8159,      325.8162,
576     -100.7592,      -50.8388,       58.3800,       12.9456,     -240.0001,
577      271.4366,      -25.3926,     -113.4190,      151.0293,      -70.2176,
578     -162.7393,      145.6055,       91.1565,     -208.0577,      255.9605,
579     -135.1730,     -110.7341,       66.2763,      133.9512,     -225.9894,
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580    266.9209,       -90.7766,      -159.7280,        97.2483,        62.7377,
581   -147.3866,       180.8732,        39.7553,      -267.2602,       180.7845,
582    -42.4286,       -64.4649,        98.5444,       142.4843,      -318.6346,
583    203.9264,       -67.1417,       -80.0764,       111.0940,       135.5720,
584   -253.6145,       125.0208,        14.0774,      -193.4267,       198.1201,
585     56.4800,      -134.2588,        20.7699,       112.4594,      -298.9330,
586    249.5988,

請按任意鍵繼續 . . .
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