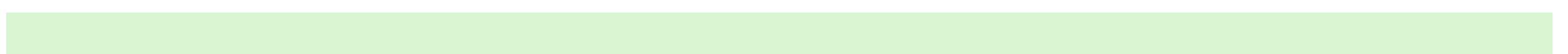
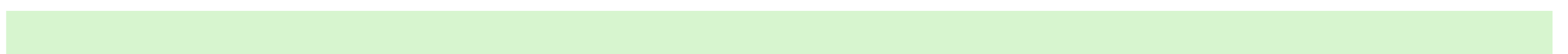
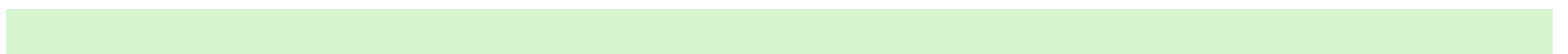
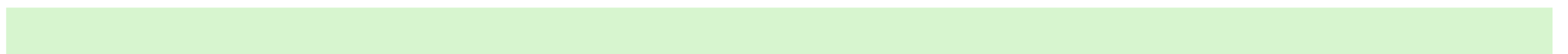
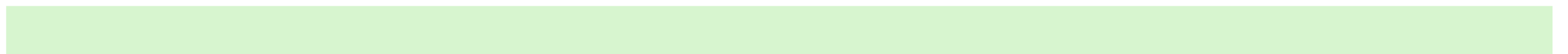
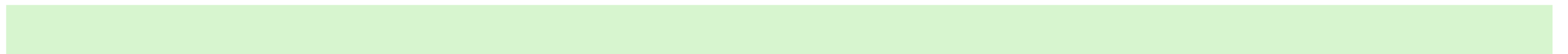
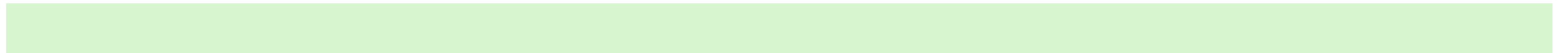
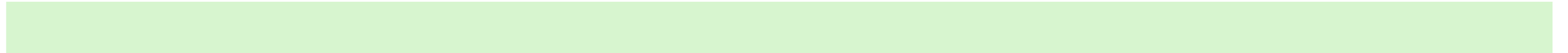


START OF FORTRAN COMPILATION

MACHINE SIZE SPECIFIED IS 08000  
ACTUAL MACHINE SIZE IS 16000



SEQ	STMNT	FORTRAN STATEMENT
	C	APPENDIX E SAMPLE PROBLEM 1 PAGE 44 OF C24-1455-2
	C	MATRIX ARITHMETIC
1		DIMENSION A(7,7), VECTOR(7), B(7,7)
2		SENSE LIGHT 1
3		DO 1 I = 1, 7
4		DO 1 J = 1, 7
5		B(I,J) = 1./FLOATF(I&J-1)
6	1	A(I,J) = B(I,J)
7		PRINT 13
8	13	FORMAT ( 15H1HILBERT MATRIX // )
9		PRINT 2, A
10	2	FORMAT ( 1X, 7E14.7 )
11		PRINT 15
12	15	FORMAT ( 8H0INVERSE // )
	C	
13	10	DO 6 K = 1, 7
14		VECTOR = 1.
15		DO 3 I = 2, 7
16	3	VECTOR(I) = 0.
17		DO 4 J = 2, 8
18	4	A(1,J) = A(1,J)/A
19		DO 5 I = 1, 55
20	5	A(I) = A(I&1)
21		DO 6 I = 1, 6
22		A(56) = A(I,1)
23		DO 6 J = 1, 7
24	6	A(I,J) = A(I,J&1) - A(56) * A(7,J)
25		PRINT 2, A
	C	TESTING SENSE LIGHT 1 TURNS IT OFF
26		IF ( SENSE LIGHT 1 ) 11, 12
27	11	PRINT 16
28	16	FORMAT ( 15H0MATRIX PRODUCT // )
29		DO 9 K = 1, 7
30		DO 8 I = 1, 7
31		VECTOR(I) = 0.0
32		DO 8 J = 1, 7
33	8	VECTOR(I) = VECTOR(I) & A(I,J) * B(J,K)
34	9	PRINT 18, VECTOR
35	18	FORMAT ( 1X, 7F14.7 )
36		PRINT 17
37	17	FORMAT ( 15H0TWICE INVERTED // )
38		GO TO 10
39	12	PRINT 7
40	7	FORMAT ( 1H1 )
41		STOP 111
42		END

790 INPUT CHARACTERS

MODULUS IS 5  
MANTISSA IS 15

STORAGE ASSIGNMENT-ARRAYS & EQUATED VARIABLES

B	7165-07997	A6V I9X
VECTOR	7046-07164	&4W A6U
A	6213-07045	K1T &4V

STORAGE ASSIGNMENT - SIMPLE VARIABLES

J	4284	28U
I	4289	28Z
K	4294	29U

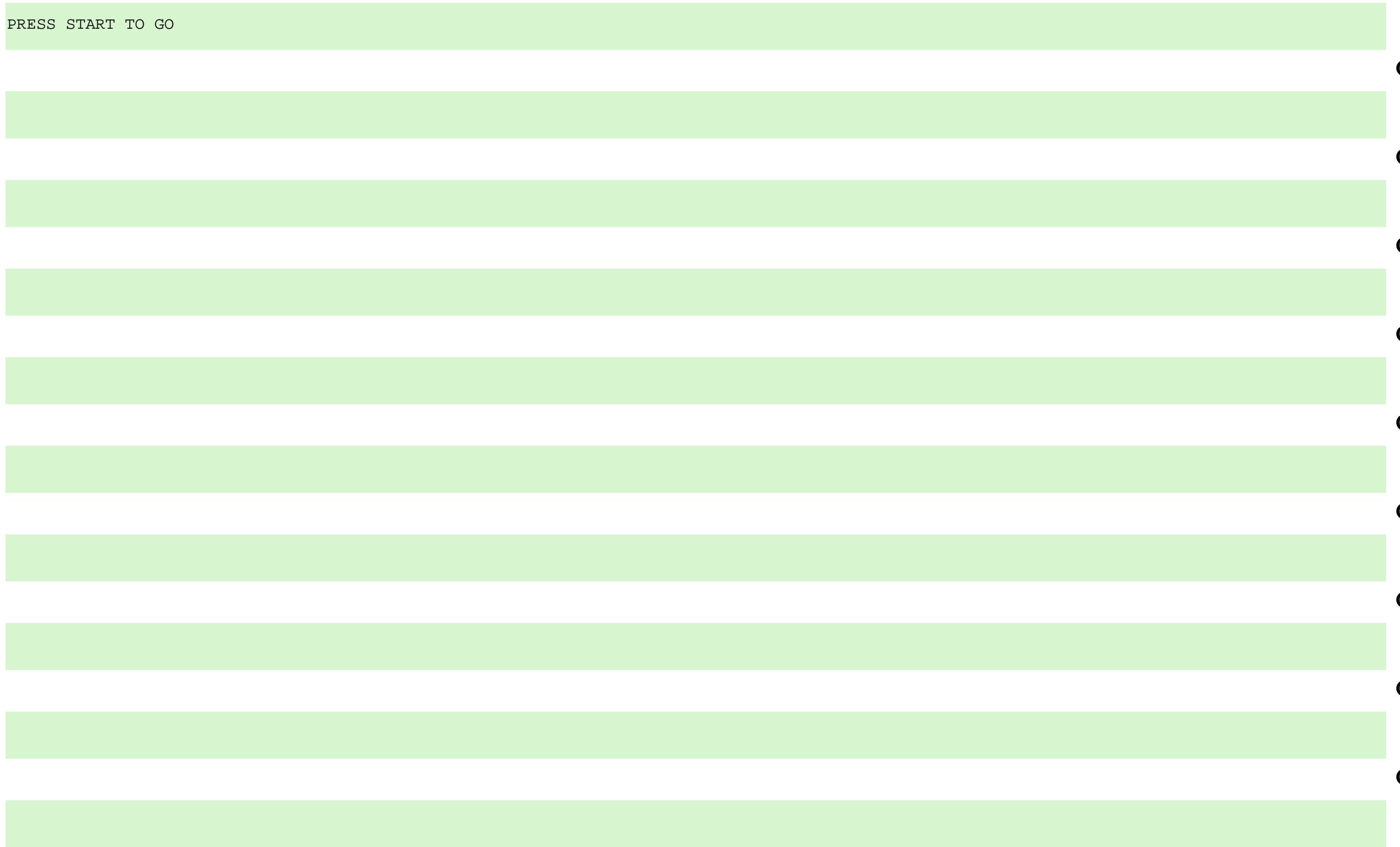
CONSTANTS LOCATED FROM 06167 TO 06212 J6X-K1S

STARTING ADDRESS OF STATEMENTS

SEQ	STARTING ADDRESS	DISPLAY
002	31U	4314 31Y
003	31Y	4318 32S
004	34/	4341 34V
005	36U	4364 36Y
006	41/	4411 41V
006	45/	4451 45V
007	45V	4455 45Z
009	46W	4466 47
011	47X	4477 48/
013	48Y	4488 49S
014	51/	4511 51V
015	52T	4523 52X
016	54W	4546 55
016	56W	4566 57
017	57	4570 57U
018	59T	4593 59X
018	62V	4625 62Z
019	62Z	4629 63T
020	65S	4652 65W
020	68	4680 68U
021	68U	4684 68Y
022	70X	4707 71/
023	72X	4727 73/
024	75	4750 75U
024	80X	4807 81/
025	81/	4811 81V
026	82S	4822 82W
027	83U	4834 83Y
029	84V	4845 84Z
030	86Y	4868 87S
031	89/	4891 89V
032	91/	4911 91V
033	93U	4934 93Y
033	99Y	4998 0S
034	0S	5002 0W
034	1T	5013 1X
036	1X	5017 2/
038	2Y	5028 3S
039	3S	5032 3W
041	4T	5043 4X
043	5S	5052 5W

END OF COMPILATION

PRESS START TO GO



HILBERT MATRIX

```
0.1000000E 01 0.5000000E 00 0.3333333E 00 0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00
0.5000000E 00 0.3333333E 00 0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00
0.3333333E 00 0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00
0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00
0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00 0.9090909E-01
0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00 0.9090909E-01 0.8333333E-01
0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00 0.9090909E-01 0.8333333E-01 0.7692308E-01
```

INVERSE

```
0.4900000E 02-0.1176000E 04 0.8820000E 04-0.2940000E 05 0.4851000E 05-0.3880800E 05 0.1201200E 05
-0.1176000E 04 0.3763200E 05-0.3175200E 06 0.1128960E 07-0.1940400E 07 0.1596672E 07-0.5045040E 06
0.8820000E 04-0.3175200E 06 0.2857680E 07-0.1058400E 08 0.1871100E 08-0.1571724E 08 0.5045040E 07
-0.2940000E 05 0.1128960E 07-0.1058400E 08 0.4032000E 08-0.7276500E 08 0.6209280E 08-0.2018016E 08
0.4851000E 05-0.1940400E 07 0.1871100E 08-0.7276500E 08 0.1334025E 09-0.1152598E 09 0.3783780E 08
-0.3880800E 05 0.1596672E 07-0.1571724E 08 0.6209280E 08-0.1152598E 09 0.1005903E 09-0.3329726E 08
0.1201200E 05-0.5045040E 06 0.5045040E 07-0.2018016E 08 0.3783780E 08-0.3329726E 08 0.1109909E 08
```

MATRIX PRODUCT

```
1.0000000 0.0000000 0.0000000 0.0000001 -0.0000002 0.0000003 -0.0000001
0.0000000 1.0000000 0.0000000 0.0000001 -0.0000002 0.0000001 0.0000000
0.0000000 0.0000000 1.0000000 0.0000000 0.0000001 0.0000001 0.0000000
0.0000000 0.0000000 0.0000000 1.0000000 -0.0000001 0.0000001 0.0000000
0.0000000 0.0000000 0.0000000 0.0000000 0.9999999 0.0000001 0.0000000
0.0000000 0.0000000 0.0000000 0.0000000 -0.0000001 1.0000001 0.0000000
0.0000000 0.0000000 0.0000000 0.0000000 -0.0000001 0.0000001 1.0000000
```

TWICE INVERTED

```
0.1000000E 01 0.5000000E 00 0.3333333E 00 0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00
0.5000000E 00 0.3333333E 00 0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00
0.3333333E 00 0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00
0.2500000E 00 0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00
0.2000000E 00 0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00 0.9090909E-01
0.1666667E 00 0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00 0.9090909E-01 0.8333333E-01
0.1428571E 00 0.1250000E 00 0.1111111E 00 0.1000000E 00 0.9090909E-01 0.8333333E-01 0.7692308E-01
```

