

Console

A=

10.	1.	0.	0.	0.	- 1.
1.	10.	1.	0.	0.	0.
2.	0.	20.	1.	0.	0.
0.	0.	1.	10.	- 1.	0.
0.	3.	0.	0.	30.	3.
0.	0.	0.	2.	- 2.	20.

B=

5.
10.
10.
0.
0.
5.

A11=

10.	1.
1.	10.

A12=

0.	0.
1.	0.

A13=

0.	- 1.
0.	0.

A21=

2.	0.
0.	0.

A22=

20.	1.
1.	10.

A23=

0.	0.
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$$-1. \quad 0.$$

A31=

$$\begin{matrix} 0. & 3. \\ 0. & 0. \end{matrix}$$

A32=

$$\begin{matrix} 0. & 0. \\ 0. & 2. \end{matrix}$$

A33=

$$\begin{matrix} 30. & 3. \\ -2. & 20. \end{matrix}$$

B1=

$$\begin{matrix} 5. \\ 10. \end{matrix}$$

B2=

$$\begin{matrix} 10. \\ 0. \end{matrix}$$

B3=

$$\begin{matrix} 0. \\ 5. \end{matrix}$$

Inverse of Matrix A11=

$$\begin{matrix} 0.1010101 & -0.0101010 \\ -0.0101010 & 0.1010101 \end{matrix}$$

Inverse of Matrix A22=

$$\begin{matrix} 0.0502513 & -0.0050251 \\ -0.0050251 & 0.1005025 \end{matrix}$$

Inverse of Matrix A33=

$$\begin{matrix} 0.0330033 & -0.0049505 \\ 0.0033003 & 0.0495050 \end{matrix}$$

X1=

0.4040404
0.9595960

X2=

0.4619055
- 0.0461905

X3=

- 0.1202193
0.2425971

X1=

0.4332109
0.9104884

X2=

0.4595779
- 0.0579797

X3=

- 0.1154739
0.2442506

X1=

0.4333544
0.9107068

X2=

0.4595396
- 0.0575014

X3=

- 0.1154908
0.2442011

X1=

0.4333490
0.9107111

X2=

0.4595403
- 0.0575031

X3=

- 0.1154912
0.2442012

X1=

0.4333490
0.9107111

X2=

0.4595403
- 0.0575031

X3=

- 0.1154912
0.2442012

Iteration	x1	x2	x3	x4	x5	x6
0.	0.	0.	0.	0.	0.	
1.	0.4040404	0.9595960	0.4619055	- 0.0461905	- 0.1202193	0.242597
2.	0.4332109	0.9104884	0.4595779	- 0.0579797	- 0.1154739	0.244250
3.	0.4333544	0.9107068	0.4595396	- 0.0575014	- 0.1154908	0.244201
4.	0.4333490	0.9107111	0.4595403	- 0.0575031	- 0.1154912	0.244201
5.	0.4333490	0.9107111	0.4595403	- 0.0575031	- 0.1154912	0.244201

After 4 iterations exact solution is:

x1=0.433349 x2=0.910711 x3=0.459540 x4=-0.057503 x5=-0.115491 x6:
.244201