

b)

$$\mathbf{A} := \begin{pmatrix} 2 & 2 & -4 & 2 & 6 & -2 \\ 4 & -2 & 2 & 4 & 2 & -6 \\ 2 & 6 & -6 & -2 & 4 & 2 \\ 10 & 4 & -2 & -2 & 4 & 2 \\ -6 & -2 & 4 & 6 & 2 & 6 \\ 8 & 6 & 2 & -12 & -6 & -4 \end{pmatrix} \quad \mathbf{B} := \begin{pmatrix} 12 \\ 60 \\ -45 \\ -9 \\ 48 \\ -81 \end{pmatrix}$$

$$\mathbf{A} \cdot \mathbf{T} := \mathbf{B}$$

$$\mathbf{Tbar} := \mathbf{A}^{-1} \cdot \mathbf{B}$$

$$\mathbf{Tbar} = \begin{pmatrix} 1.5 \\ -3 \\ 4.5 \\ 6 \\ 3 \\ -1.5 \end{pmatrix}$$

	A	B	C	D	E	F	G	H	I	J	K	L	
12	inverse matrix												
13	-0.1514	0.0775	0.0423	0.0986	-0.0528	-0.0493		12					
14	-0.2746	0.2723	0.4061	-0.108	0.1174	0.054		60					
15	0.1655	-0.0188	-0.1315	-0.0012	0.1643	0.1256		-45					
16	-0.4577	0.3427	0.3991	-0.0411	0.0012	-0.1045		-9					
17	0.5458	-0.2676	-0.3732	0.0458	0.0915	0.1021		48					
18	-0.0775	-0.0728	-0.0094	0.0892	0.0117	-0.0446		-81					
19													
20													
21	-0.1514	0.0775	0.0423	0.0986	-0.0528	-0.0493		12					
22	0	0.1318	0.3295	-0.2868	0.2132	0.1434		38.233					
23	0	0.0659	-0.0853	0.1066	0.1066	0.0717		-31.884					
24	0	0.1085	0.2713	-0.3391	0.1609	0.0446		-45.279					
25	0	0.0116	-0.2209	0.4012	-0.0988	-0.0756		91.256					
26	0	-0.1124	-0.031	0.0388	0.0388	-0.0194		-87.14					
27					t1			756					
28													
29		0.1318	0.3295	-0.2868	0.2132	0.1434		38.233					
30		0	-0.25	0.25	0	0		-51					
31		0	0	-0.1029	-0.0147	-0.0735		-76.765					
32		0	-0.25	0.4265	-0.1176	-0.0882		87.882					
33		0	0.25	-0.2059	0.2206	0.1029		-54.529					
34					t2			384					
35													
36			-0.25	0.25	0	0		-51					
37			0	-0.1029	-0.0147	-0.0735		-76.765					
38			0	0.1765	-0.1176	-0.0882		138.88					
39			0	0.0441	0.2206	0.1029		-105.53					
40					t3			702					
41													
42				-0.1029	-0.0147	-0.0735		-76.765					
43				0	-0.1429	-0.2143		7.2857					
44				0	0.2143	0.0714		-138.43					
45					t4			498					
46													
47				-0.1429	-0.2143			7.2857		t5	-816		
48				0	-0.25			-127.5					
49					t6			510					

c)

d)

$$A := \begin{pmatrix} 2 & 2 & -4 & 2 & 6 & -2 \\ 4 & -2 & 2 & 4 & 2 & -6 \\ 2 & 6 & -6 & -2 & 4 & 2 \\ 10 & 4 & -2 & -2 & 4 & 2 \\ -6 & -2 & 4 & 6 & 2 & 6 \\ 8 & 6 & 2 & -12 & -6 & -4 \end{pmatrix} \quad B := \begin{pmatrix} 12 \\ 60 \\ -45 \\ -9 \\ 48 \\ -81 \end{pmatrix}$$

$$A^{-1} = \begin{pmatrix} -0.151 & 0.077 & 0.042 & 0.099 & -0.053 & -0.049 \\ -0.275 & 0.272 & 0.406 & -0.108 & 0.117 & 0.054 \\ 0.165 & -0.019 & -0.131 & -1.174 \times 10^{-3} & 0.164 & 0.126 \\ -0.458 & 0.343 & 0.399 & -0.041 & 1.174 \times 10^{-3} & -0.104 \\ 0.546 & -0.268 & -0.373 & 0.046 & 0.092 & 0.102 \\ -0.077 & -0.073 & -9.39 \times 10^{-3} & 0.089 & 0.012 & -0.045 \end{pmatrix}$$

$$A^{-1} \cdot T := B$$

$$T_{\text{bar}} := (A^{-1})^{-1} \cdot B$$

$$T_{\text{bar}} = \begin{pmatrix} 756 \\ 384 \\ 702 \\ 498 \\ -816 \\ 510 \end{pmatrix}$$