1. Найти A^{-1}, проверить $A\,A^{-1} = E$.

	i	a_{i1}	a_{i2}	a_{i3}	a_{i4}	a_{i5}	$\Sigma = a_{i6}$	Σ_i
I	1	7.22	1.42	−1.72	1.91	1	9.83	
	2	1.44	6.33	1.11	−1.82	0	7.06	
	3	−1.72	1.11	6.24	1.42	0	7.05	
	4	1.91	−1.82	1.42	7.55	0	9.06	$j = 1, \ldots, 5$
		1	0.197	−0.238	0.265	0.139	1.361	1.361
II	2		6.047	1.453	−2.201	−0.199	5.099	5.099
	3		1.448	5.830	1.875	0.238	9.392	9.392
	4		−2.196	1.875	7.045	−0.265	6.460	6.460
			1	0.240	−0.364	−0.033	0.843	0.843
III	3			5.482	2.402	0.286	8.170	8.170
	4			2.403	6.246	−0.337	8.311	8.311
				1	0.438	0.052	1.490	1.490
IV	4				5.193	−0.462	4.730	4.730
V					1	−0.089	0.911	
				1		0.091	1.091	
			1			−0.087	0.913	
		1				0.201	1.201	

Table1

	i	a_{i1}	a_{i2}	a_{i3}	a_{i4}	a_{i5}	$\Sigma = a_{i6}$	Σ_i
I	1	7.22	1.42	-1.72	1.91	0	8.83	
	2	1.44	6.33	1.11	-1.82	1	8.06	
	3	-1.72	1.11	6.24	1.42	0	7.05	
	4	1.91	-1.82	1.42	7.55	0	9.06	j = 1, ..., 5
		1	0.197	-0.238	0.265	0	1.223	1.223
II	2		6.047	1.453	-2.201	1	6.299	6.299
	3		1.448	5.830	1.875	0	9.154	9.154
	4		-2.196	1.875	7.045	0	6.724	6.724
			1	0.240	-0.364	0.165	1.042	1.042
III	3			5.482	2.402	-0.240	7.645	7.645
	4			2.403	6.246	0.363	9.011	9.011
				1	0.438	-0.044	1.394	1.394
IV	4				5.193	0.468	5.661	5.661
V					1	0.090	1.911	
				1		-0.083	0.917	
			1			0.218	1.218	
		1				-0.087	0.913	

Table2

	i	a_{i1}	a_{i2}	a_{i3}	a_{i4}	a_{i5}	$\Sigma = a_{i6}$	Σ_i
I	1	7.22	1.42	-1.72	1.91	0	8.83	
	2	1.44	6.33	1.11	-1.82	0	7.06	
	3	-1.72	1.11	6.24	1.42	1	8.05	
	4	1.91	-1.82	1.42	7.55	0	9.06	j = 1, ..., 5
		1	0.197	-0.238	0.265	0	1.223	1.223
II	2		6.047	1.453	-2.201	0	5.299	5.299
	3		1.448	5.830	1.875	1	10.154	10.154
	4		-2.196	1.875	7.045	0	6.724	6.724
			1	0.240	-0.364	0	0.876	0.876
III	3			5.482	2.402	1	8.884	8.884
	4			2.403	6.246	0	8.648	8.648
				1	0.438	0.182	1.621	1.621
IV	4				5.193	-0.438	4.755	4.730
V					1	-0.084	0.916	
				1		0.219	1.219	
			1			-0.083	0.917	
		1				0.091	1.091	

Table3

	i	a_{i1}	a_{i2}	a_{i3}	a_{i4}	a_{i5}	$\Sigma = a_{i6}$	Σ_i
I	1	7.22	1.42	-1.72	1.91	0	8.83	
	2	1.44	6.33	1.11	-1.82	0	7.06	
	3	-1.72	1.11	6.24	1.42	0	7.05	
	4	1.91	-1.82	1.42	7.55	1	10.06	$j = 1, \ldots, 5$
		1	0.197	-0.238	0.265	0	1.223	1.223
II	2		6.047	1.453	-2.201	0	5.299	5.299
	3		1.448	5.830	1.875	0	9.154	9.154
	4		-2.196	1.875	7.045	1	7.724	7.724
			1	0.240	-0.364	0	0.876	0.876
III	3			5.482	2.402	0	7.884	7.884
	4			2.403	6.246	1	9.648	8.648
				1	0.438	0	1.438	1.438
IV	4				5.193	1	6.193	6.193
V					1	0.193	1.193	
				1		-0.084	0.916	
			1			0.090	1.090	
		1				-0.089	0.911	

Table4

In[77]:=
```
d = {
    {6.22, 1.42, -1.72, 1.91},
    {1.44, 5.33, 1.11, -1.82},
    {-1.72, 1.11, 5.24, 1.42},
    {1.91, -1.82, 1.42, 6.55}
   };
c = {
    {1, 0, 0, 0},
    {0, 1, 0, 0},
    {0, 0, 1, 0},
    {0, 0, 0, 1}
   };
f = {
    {7.53},
    {6.06},
    {8.05},
    {8.06}
   };
k = 1;
A = d + k * c;
invA = {{0.201, -0.087, 0.091, -0.089}, {-0.087, 0.218, -0.083, 0.090},
    {0.091, -0.083, 0.219, -0.084}, {-0.089, 0.090, -0.084, 0.193}};
MatrixForm[invA];
```
матричная форма
```
MatrixForm[A];
```
матричная форма
```
Ee = A.invA;
Ee = Round[Ee, 1];
```
округлить
```
MatrixForm[Ee];
```
матричная форма

2. Найти число обусловленности condA.

cond **для Октоэдрической нормы :** 6.073

cond **для кубической нормы :** 6.087