

R0:

	А	Б	В	Г	Д	Е	Ё	Ж	З	И	Й	К	Л	М	Н	О	П	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я		
А		1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Б	0.1		1	0.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.6	0.1	0.1	0.1	
В	0.2	0.9		1	0.1	0.1	0.6	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Г	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Д	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Е	0.1	0.1	0.6	0.1	0.1		1	0.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Ё	0.1	0.1	0.1	0.1	0.1	0.9		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Ж	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
З	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9	0.1	0.1	
И	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.9	0.1	0.1	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Й	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9		1	0.1	0.1	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
К	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.7	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Л	0.8	0.1	0.1	0.1	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.8	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
М	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.7	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Н	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
О	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.1	
П	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.1	0.6	0.1		1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Р	0.1	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
С	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Т	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
У	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Ф	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Х	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Ц	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.7	0.9	0.1	0.1	0.1	0.1	0.1	0.1	
Ч	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Ш	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.1		1	0.9	0.1	0.1	0.1	0.1	0.1	0.1	
Щ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9	0.1	0.9		1	0.1	0.1	0.1	0.1	0.1	0.1	
Ъ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.8	0.9	0.1	0.1	0.1	
Ы	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8		1	0.8	0.1	0.1	0.1	0.1	
Ь	0.1	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9	0.8		1	0.1	0.1	0.1	
Э	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	0.1	
Ю	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	0.1	
Я	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1

After modifying this matrix and replacing all values less than 0.55 and main diagonal by 0 we get such matrix:

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
		А	Б	В	Г	Д	Е	Ё	Ж	З	И	Й	К	Л	М	Н	О	П	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
1	А	0	0	0	0	0.7	0	0	0	0	0	0	0	0.8	0	0.6	0	0.8	0	0	0	0	0	0	0	0.6	0	0	0	0	0	0	0	0
2	Б	0	0	0.9	0	0	0.6	0.6	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.6	0.6	0.8	0	0
3	В	0	0.9	0	0	0	0.6	0.6	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.6	0.6	0.8	0	0
4	Г	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Д	0.7	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0.6	0	0.7	0	0	0	0	0	0	0	0	0.6	0	0	0	0	0	0	0
6	Е	0	0.6	0.6	0	0	0	0.9	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.6	0.6	0.6	0	0
7	Ё	0	0.6	0.6	0	0	0.9	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.6	0.6	0.6	0	0
8	Ж	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	З	0	0.8	0.8	0	0	0.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.6	0.6	0.9	0	0
10	И	0	0	0	0	0	0	0	0	0	0	0.9	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Й	0	0	0	0	0	0	0	0	0	0.9	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	К	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Л	0.8	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0.6	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	М	0	0	0	0	0	0	0	0	0	0.7	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Н	0.6	0	0	0	0.6	0	0	0	0	0	0	0	0.6	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0
16	О	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0
17	П	0.8	0	0	0	0.7	0	0	0	0	0	0	0	0.8	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0	0	0
18	Р	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	С	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Т	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	У	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Ф	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Х	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Ц	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Ч	0.6	0	0	0	0.6	0	0	0	0	0	0	0	0.6	0	0.8	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Ш	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0	0.9	0	0	0	0	0
27	Щ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0.9	0	0	0	0	0	0
28	Ъ	0	0.6	0.6	0	0	0.6	0.6	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0.9	0.6	0	0
29	Ы	0	0.6	0.6	0	0	0.6	0.6	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0.8	0.6	0	0
30	Ь	0	0.6	0.6	0	0	0.6	0.6	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0.8	0	0.6	0	0
31	Э	0	0.8	0.8	0	0	0.6	0.6	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.6	0.6	0	0	0
32	Ю	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Я	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1-st cluster

Step 1: $I = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33\}$, $C = \{ \}$

Step 2-4: find maximum value: $a_{2,3} = 0.9$, put index to $C = \{ \}$: $C = \{2, 3\}$, find index of the columns, where sum is maximum: $\text{Max}_9 = \text{Max}_{31} = 1.6$ $C_1 = \{2, 3, 9, 31\} \Rightarrow \text{Б, В, З, Э}$, find index of the columns, where sum is maximum: $\text{Max}_6 = \text{Max}_7 = \text{Max}_{28} = \text{Max}_{29} = \text{Max}_{30} = 2.4$

$C_1 = \{2, 3, 6, 7, 9, 28, 29, 30, 31\} \Rightarrow \text{Б, В, Е, Ё, З, Ъ, Ы, Б, Э}$.

Step 5: $I = I - C = \{1, 4, 5, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 33\}$

$C = \{ \}$

2-nd cluster

Step 2-4: find maximum value: $a_{13,17} = 0.8$, put index to $C = \{ \}$: $C = \{13, 17\}$, find index of the columns, where sum is maximum: $\text{Max}_1 = 1.6$

$C_2 = \{1, 13, 17\} \Rightarrow \text{А, Л, П}$, find index of the columns, where sum is maximum: $\text{Max}_5 = 1.4$

$C_2 = \{1, 5, 13, 17\} \Rightarrow \text{А, Д, Л, П}$.

Step 5: $I = I - C = \{4, 8, 10, 11, 12, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 33\}$

$C = \{ \}$

3-rd cluster

Step 2-4: find maximum value: $a_{18} = 0.8$, put index to $C = \{ \}$: $C = \{18\}$, find index of the columns, where sum is maximum: $\text{Max}_4 = 0.8$

$C_3 = \{4, 18\} \Rightarrow \text{Г, Р}$.

Step 5: $I = I - C = \{8, 10, 11, 12, 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 33\}$

$C = \{ \}$

4-th cluster

Step 2-4: find maximum value: $a_{12} = 0.7$, put index to $C = \{ \}$: $C = \{12\}$, find index of the columns, where sum is maximum:

$\text{Max}_8 = 0.7$

$C_4 = \{8, 12\} \Rightarrow \text{Ж, К.}$

Step 5: $I = I - C = \{10, 11, 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 33\}$

$C = \{ \}$

5-th cluster

Step 2-4: find maximum value: $a_{11} = 0.9$, put index to $C = \{ \}$: $C = \{11\}$, find index of the columns, where sum is maximum:

$\text{Max}_{10} = 0.9$ $C_5 = \{10, 11\} = \text{И, Ё}$, find index of the columns, where sum is maximum: $\text{Max}_{14} = 1, 4$

$C_5 = \{10, 11, 14\} = \text{И, Ё, М.}$

Step 5: $I = I - C = \{15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 33\}$

$C = \{ \}$

6-th cluster

Step 2-4: find maximum value: $a_2 = 0.8$, put index to $C = \{ \}$: $C = \{25\}$, find index of the columns, where sum is maximum:

$\text{Max}_{15} = 0.8$

$C_6 = \{15, 25\} = \text{Н, Ч.}$

Step 5: $I = I - C = \{16, 19, 20, 21, 22, 23, 24, 26, 27, 32, 33\}$

$C = \{ \}$

7-th cluster

Step 2-4: find maximum value: $a_{32} = 0.6$, put index to $C = \{ \}$: $C = \{32\}$, find index of the columns, where sum is maximum:

$\text{Max}_{16} = 0.6$

$C_7 = \{16, 32\} = \text{О, Ю.}$

Step 5: $I = I - C = \{19, 20, 21, 22, 23, 24, 26, 27, 33\}$

$C = \{ \}$

8-th cluster

Step 2-4: find maximum value: $a_{26} = a_{27} = 0.9$, put index to $C = \{ \}$: $C = \{26, 27\}$, find index of the columns, where sum is maximum: $\text{Max}_{24} = 1, 8$

$C_8 = \{24, 26, 27\} = \text{Ц, Ш, Щ.}$

Step 5: $I = I - C = \{19, 20, 21, 22, 23, 33\}$

$C = \{ \}$

And the last 6 clusters are: $C_9 = \{19\} \Rightarrow C$, $C_{10} = \{20\} \Rightarrow T$, $C_{11} = \{21\} \Rightarrow Y$, $C_{12} = \{22\} \Rightarrow \Phi$, $C_{13} = \{23\} \Rightarrow X$, $C_{14} = \{33\} \Rightarrow Я$

So we have: $C = \{$

$\{ Б, В, Е, Ё, З, Ъ, Ы, Ь, Э \}$

$\{ А, Д, Л, П \}$

$\{ Г, Р \}$

$\{ Ж, К \}$

$\{ И, Ё, М \}$

$\{ Н, Ч \}$

$\{ О, Ю \}$

$\{ Ц, Ш, Щ \}$

$\{ C \}$

$\{ T \}$

$\{ Y \}$

$\{ \Phi \}$

$\{ X \}$

$\{ Я \}$

$\}$