

1	2.4								
2	2.5	0.3							
3	2.6	0.6	0.1						
4	2.4	0.2	0.5	0.3					
5	2.3	0.2	0.3	0.3	0.1				
6	1.2	2.0	2.0	2.4	2.5	1.9			
7	1.3	2.1	2.2	2.4	2.4	2.3	0.1		
8	1.1	2.2	2.1	2.4	2.6	2.0	0.1	0.1	

Determine in which two European cities and one Japanese city must be located the new servers to minimize the total estimated access time for the clients.

PROBLEM: WEB PAGES ASSIGNMENT

A search engine has stored all the information about web pages in 10 data bases (A to J) that it is kept in 3 disks available. Each disk has a capacity of 885 GB. In the following table it is shown the size of each data base in GB (in the last column) and a relation index of any two data bases. This symmetric index measures the number of times that appear content of both data bases in any search. Two data bases with a high relation index should be assigned to different disks to minimize the access time. We want to determine the optimal assignment of data bases to disks so as to minimize the total relation index among them.

	A	B	C	D	E	F	G	H	I	J	Size
A											110
B	43										238
C	120	10									425
D	57	111	188								338
E	96	78	46	88							55
F	83	58	421	60	63						391
G	77	198	207	109	73	74					267
H	31	50	43	47	51	21	88				105
I	38	69	55	21	36	391	47	96			256
J	212	91	84	53	71	40	37	35	221		64

III Formulation

Write the mathematical problem formulation (objective function, constraints and variable bounds)



IV Numerical results

Write in this page the value of the problem variables.