

Matching and covers. Variant 1.

1. Find the shortest vertex cover using the CNF of the covering function.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the branches and bounds method.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		1	1				1	1
<i>b</i>	1				1		1	1
<i>c</i>	1				1			
<i>d</i>						1	1	
<i>e</i>		1	1				1	
<i>f</i>				1				1
<i>g</i>	1	1		1	1			
<i>h</i>	1	1				1		

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		3	7				4	8
<i>b</i>	3				1		4	2
<i>c</i>	7				9			
<i>d</i>						2	1	
<i>e</i>		1	9				3	
<i>f</i>				2				5
<i>g</i>	4	4		1	3			
<i>h</i>	8	2				5		

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α	12	13		5	3	
β	32		21	23	12	23
γ			36		17	
δ	5	4	31	7		32
ε		12	13	4	21	12
ζ	22	15		18		26

7. Solve the transport problem.

		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
		8	12	7	16	2
α	12	13	11	5	3	9
β	13	20	21	23	12	3
γ	5	23	36	3	17	10
δ	5	4	31	7	32	32
ε	10	12	13	4	21	12

Matching and covers. Variant 2.

1. Find the shortest vertex cover using the branches and bounds method.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the CNF of the covering function.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>					1		1	1
<i>b</i>			1		1		1	
<i>c</i>		1		1	1			
<i>d</i>			1			1		
<i>e</i>	1	1	1				1	
<i>f</i>				1				1
<i>g</i>	1	1			1			1
<i>h</i>	1					1	1	

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>					9		2	3
<i>b</i>			1		4		8	
<i>c</i>		1		7	2			
<i>d</i>			7			2		
<i>e</i>	9	4	2				5	
<i>f</i>				2				7
<i>g</i>	2	8			5			4
<i>h</i>	3					7	4	

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α		13		5	3	11
β	10	12		23	12	23
γ			36	2	17	
δ	5	4		17	2	13
ε		12	3	4	21	12
ζ	10	5		18		

7. Solve the transport problem.

		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
		8	12	7	16	2
α	12	3	10	2	3	9
β	13	20	21	5	4	3
γ	5	23	36	3	17	10
δ	5	4	31	7	10	32
ε	10	10	31	4	21	12

Matching and covers. Variant 3.

1. Find the shortest vertex cover using the CNF of the covering function.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the branches and bounds method.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		1				1	1	
<i>b</i>	1				1	1		1
<i>c</i>				1	1			
<i>d</i>			1			1		
<i>e</i>		1	1				1	
<i>f</i>	1	1		1			1	1
<i>g</i>	1				1	1		1
<i>h</i>		1				1	1	

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		1				5	8	
<i>b</i>	1				8	9		2
<i>c</i>				4	5			
<i>d</i>			4			6		
<i>e</i>		8	5				1	
<i>f</i>	5	9		6			6	3
<i>g</i>	8				1	6		8
<i>h</i>		2				3	8	

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α	12	13		5	3	
β			21	23	12	
γ	31		36	4	17	
δ	5	4	31	7	12	32
ε	12	12	13		21	12
ζ			10	18		21

7. Solve the transport problem.

		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
		8	12	7	16	2
α	12	13	11	5	3	9
β	13	20	21	2	12	3
γ	5	13	36	3	17	2
δ	5	4	31	12	21	32
ε	10	12	13	4	21	12

Matching and covers. Variant 4.

1. Find the shortest vertex cover using the branches and bounds method.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the CNF of the covering function.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>				1	1	1	1	1
<i>b</i>					1		1	1
<i>c</i>					1	1		
<i>d</i>	1					1	1	
<i>e</i>	1	1	1				1	
<i>f</i>	1		1	1				
<i>g</i>	1	1		1	1			
<i>h</i>	1	1						

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>				7	6	5	4	2
<i>b</i>					1		3	2
<i>c</i>					9	1		
<i>d</i>	7					2	1	
<i>e</i>	6	1	9				3	
<i>f</i>	5		1	2				
<i>g</i>	4	3		1	3			
<i>h</i>	2	2						

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α		13		5	3	7
β	32		21	23	12	
γ	3				17	11
δ	5	4	31	7		32
ε		12	13	4		12
ζ	22	15		18	12	

7. Solve the transport problem.

		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
		<i>8</i>	<i>12</i>	<i>7</i>	<i>16</i>	<i>2</i>
α	<i>12</i>	13	11	5	3	9
β	<i>13</i>	20	21	23	2	3
γ	<i>5</i>	23	21	3	4	10
δ	<i>5</i>	4	35	12	32	32
ε	<i>10</i>	12	23	4	21	12

Matching and covers. Variant 5.

1. Find the shortest vertex cover using the CNF of the covering function.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the branches and bounds method.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>			1	1			1	1
<i>b</i>					1			1
<i>c</i>	1				1			
<i>d</i>	1					1	1	
<i>e</i>		1	1				1	1
<i>f</i>				1				1
<i>g</i>	1			1	1			
<i>h</i>	1	1			1	1		

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>			5	3			4	8
<i>b</i>					2			2
<i>c</i>	5				9			
<i>d</i>	3					2	1	
<i>e</i>		2	9				7	4
<i>f</i>				2				8
<i>g</i>	4			1	7			
<i>h</i>	8	2			4	8		

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α	12			5	3	
β	32	12	21	23	12	10
γ			36	4	17	12
δ	5	4	31			32
ε		12	13	4		12
ζ	22		2	18		6

7. Solve the transport problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	
	8	12	7	16	2	
α	12	13	11	5	3	9
β	13	20	21	23	4	3
γ	5	10	36	12	17	6
δ	5	4	31	7	28	32
ε	10	12	13	4	21	5

Matching and covers. Variant 6.

1. Find the shortest vertex cover using the branches and bounds method.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the CNF of the covering function.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		1		1	1		1	1
<i>b</i>	1		1		1		1	
<i>c</i>		1			1			
<i>d</i>	1					1		
<i>e</i>	1	1	1				1	1
<i>f</i>				1				
<i>g</i>	1	1			1			1
<i>h</i>	1				1		1	

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		7		9	9		2	3
<i>b</i>	7		1		4		1	
<i>c</i>		1			2			
<i>d</i>	9					2		
<i>e</i>	9	4	2				4	2
<i>f</i>				2				
<i>g</i>	2	1			4			5
<i>h</i>	3				2		5	

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α		17		5	3	11
β	10	12	12	7	12	
γ	34			2	17	
δ	5	4		17	2	5
ε		12	3	4		12
ζ	10	5	11	18		

7. Solve the transport problem.

		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
		<i>8</i>	<i>12</i>	<i>7</i>	<i>16</i>	<i>2</i>
α	<i>12</i>	3	10	2	3	9
β	<i>13</i>	20	12	5	4	3
γ	<i>5</i>	23	36	11	17	4
δ	<i>5</i>	4	31	7	10	32
ε	<i>10</i>	22	31	4	34	12

Matching and covers. Variant 7.

1. Find the shortest vertex cover using the CNF of the covering function.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the branches and bounds method.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		1	1	1		1		
<i>b</i>	1		1		1	1		1
<i>c</i>	1	1			1			
<i>d</i>	1							1
<i>e</i>		1	1				1	
<i>f</i>	1	1					1	1
<i>g</i>					1	1		1
<i>h</i>		1		1		1	1	

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		5	3	4		5		
<i>b</i>	5		2		8	9		2
<i>c</i>	3	2			3			
<i>d</i>	4							5
<i>e</i>		8	3				1	
<i>f</i>	5	9					6	3
<i>g</i>					1	6		8
<i>h</i>		2		5		3	8	

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α	12		2	5	3	5
β		12	21	23	12	
γ	31			4	5	
δ	5			7	12	23
ε	12	6	13		4	
ζ			10	18	11	21

7. Solve the transport problem.

		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
		8	12	7	16	2
α	12	22	12	12	8	9
β	13	20	21	2	12	23
γ	5	13	36	3	4	2
δ	5	4	31	12	3	32
ε	10	15	13	13	21	12

Matching and covers. Variant 8.

1. Find the shortest vertex cover using the branches and bounds method.
2. Find three maximal independent vertex sets.
3. Find a minimal dominating set using the CNF of the covering function.
4. Find a matching of the maximal cardinal number.
5. Find a matching of the maximal weight.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		1	1		1	1	1	
<i>b</i>	1		1		1			1
<i>c</i>	1	1						
<i>d</i>						1	1	
<i>e</i>	1	1					1	
<i>f</i>	1			1				1
<i>g</i>	1			1	1			
<i>h</i>		1				1		

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>a</i>		8	7		2	6	4	
<i>b</i>	8		1		1			9
<i>c</i>	7	1						
<i>d</i>						2	4	
<i>e</i>	2	1					3	
<i>f</i>	6			2				5
<i>g</i>	4			4	3			
<i>h</i>		9				5		

6. Solve the assignment problem.

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
α			22	12	3	6
β	32		21		12	
γ	3		13	3		11
δ	5	4	31	7		32
ε		33	13	4		14
ζ	22	15		10	12	

7. Solve the transport problem.

		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
		8	12	7	16	2
α	12	23	11	5	3	9
β	13	20	20	23	2	3
γ	5	23	21	3	12	4
δ	5	15	5	12	32	6
ε	10	12	23	31	21	12