

Test Problems for Irregular Packing: JAKOBS

Description of table entries:

reference: publication in which test problem has been used
name: name which the problem is referred to in this work
size: number of items
shapes: geometric shape type which the problem consists of
source: source where the co-ordinates used for the experiments in this work have been obtained from;
i.e. supplied by authors, stated in publication, extracted from sample layout in publication or
extracted from scanned sample layout in publication
factor: scaling factor between problem instance used in the current work and the problem used in the
publication; only stated if dimensions are used in publication

Table: Irregular test problems from literature: artificially created problems

reference	name	size	problem type	shapes	source	factor
Jakobs (1996)	Jakobs1	25	artificial	polygons	constructed from sample layout in paper	1
Jakobs (1996)	Jakobs2	25	artificial	polygons	constructed from sample layout in paper	2

name:	Jakobs1											
size:	25											
object:	width: 40											
no												
1	x	0	2	0								
	y	0	0	2								
2	x	0	3	0								
	y	0	0	3								
3	x	0	4	0								
	y	0	0	4								
4	x	5	5	0								
	y	0	5	5								
5	x	0	6	6								
	y	3	0	3								
6	x	0	7	7								
	y	4	0	4								
7	x	0	5	5	3	3	0					
	y	0	0	3	3	5	5					
8	x	0	4	4	2	2	0					
	y	0	0	1	1	4	4					
9	x	0	6	6	4	4	0					
	y	0	0	3	3	6	6					
10	x	0	5	5	3	3	0					
	y	0	0	2	2	1	1					
11	x	0	4	4	3	3	0					
	y	0	0	2	2	1	1					
12	x	0	6	6	4	4	0					
	y	0	0	3	3	6	6					
13	x	0	6	6	0							
	y	0	0	6	6							
14	x	0	5	5	0							
	y	0	0	5	5							
15	x	0	4	4	0							
	y	0	0	4	4							
16	x	2	4	4	6	6	4	4	2	2	0	2
	y	0	0	2	2	4	4	6	6	4	4	2
17	x	1	2	2	3	3	2	2	1	1	0	1
	y	0	0	1	1	2	2	3	3	2	2	1
18	x	2	4	4	6	6	4	4	2	2	0	2
	y	0	0	2	2	4	4	6	6	4	4	2
19	x	1	2	2	3	3	2	2	1	1	0	1
	y	0	0	1	1	2	2	3	3	2	2	1
20	x	0	6	6	0							
	y	0	0	3	3							
21	x	0	1	1	0							
	y	0	0	4	4							
22	x	0	5	5	0							
	y	0	0	2	2							
23	x	2	4	6	6	4	2	0	0			
	y	0	0	2	4	6	6	4	2			
24	x	3	6	8	8	6	3	0	0			
	y	0	0	2	4	6	6	4	2			
25	x	0	2	4	6	6	4	2	0			
	y	1	0	0	1	2	3	3	2			

name:	Jakobs2											
size:	25											
object:	width: 70											
no												
1	x	0	6	12	6							
	y	4	0	4	8							
2	x	5	10	10	0	0	5					
	y	0	0	10	10	5	5					
3	x	0	6	4	4	6	0	2	2			
	y	0	0	2	4	6	6	4	2			
4	x	0	8	6	6	8	0	2	2			
	y	0	0	2	6	8	8	6	2			
5	x	0	10	8	8	10	0	2	2			
	y	0	0	2	8	10	10	8	2			
6	x	0	6	6	4	4	2	2	0			
	y	0	0	6	6	2	2	6	6			
7	x	0	8	8	6	6	2	2	0			
	y	0	0	8	8	2	2	8	8			
8	x	0	10	10	8	8	2	2	0			
	y	0	0	10	10	2	2	10	10			
9	x	0	12	6								
	y	0	0	12								
10	x	0	8	4								
	y	0	0	8								
11	x	0	10	10								
	y	10	0	10								
12	x	6	12	6	0							
	y	0	8	16	8							
13	x	6	12	0								
	y	0	12	12								
14	x	0	8	4								
	y	0	0	8								
15	x	5	10	0								
	y	0	10	10								
16	x	4	8	4	0							
	y	0	5	10	5							
17	x	2	4	6	6	3	0	0				
	y	0	0	2	4	6	4	2				
18	x	2	6	8	8	4	0	0				
	y	0	0	2	6	8	6	2				
19	x	0	6	6	3	3	0					
	y	0	0	3	3	6	6					
20	x	4	8	8	0	0	4					
	y	0	0	8	8	4	4					
21	x	0	6	6	3	3	0					
	y	0	0	3	3	6	6					
22	x	4	8	8	0	0	4					
	y	0	0	8	8	4	4					
23	x	0	12	12	0							
	y	0	0	12	12							
24	x	0	8	8	0							
	y	0	0	8	8							
25	x	0	10	10	0							
	y	0	0	10	10							

Figure: Data set for test problem Jakobs1 and Jakobs2

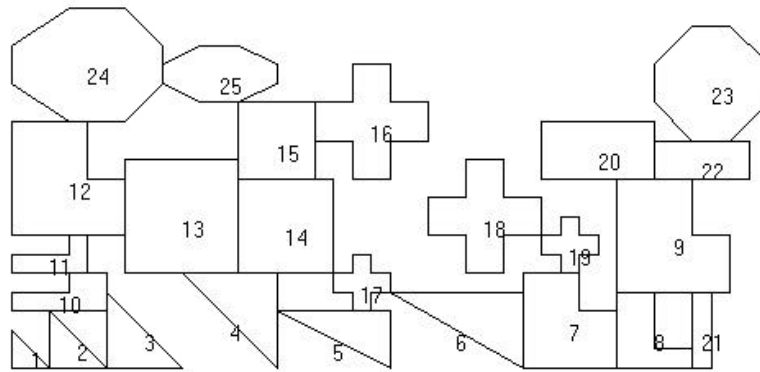


Figure: Data set for test problem Jakobs1

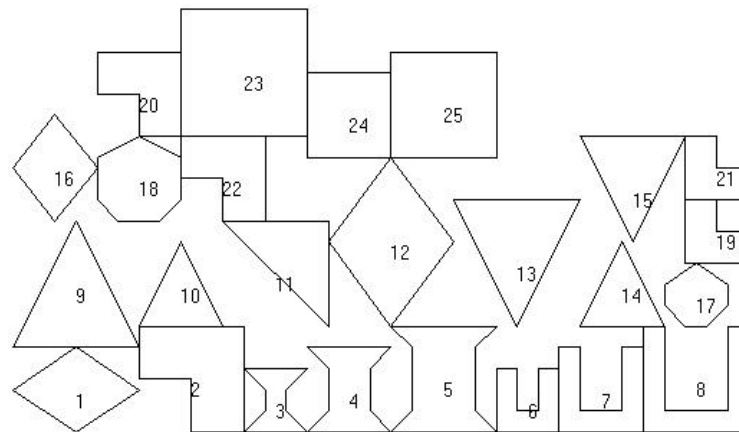


Figure: Data set for test problem Jakobs2

References

Jakobs, S. 1996, On genetic algorithms for the packing of polygons. European Journal of Operations Research 88, 165-181.