

# Test Problems for Irregular Packing: MAO

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

Irregular test problems from literature: textile industry

reference	name	size	problem type	shapes	source	factor
Bounsaythip and Maouche (1997)	Mao	20	textile	polygons, non-polygonal pieces with arcs	scanned from sample layout in paper; approximated by polygons	5

**name:** Mao  
**size:** 20  
**object:** width: 2550

no.	quantity	x	y	width	height	area	perimeter	centroid_x	centroid_y	centroid_x2	centroid_y2	centroid_x3	centroid_y3	centroid_x4	centroid_y4	centroid_x5	centroid_y5	centroid_x6	centroid_y6	centroid_x7	centroid_y7	centroid_x8	centroid_y8	centroid_x9	centroid_y9
1	2	x	10	478	727	856	930	1049	1078	0															
		y	115	113	21	44	47	0	295	396	407														
2	2	x	0	316	316	0																			
		y	0	2	274	275																			
3	4	x	0	239	242	0																			
		y	1	0	80	78																			
4	2	x	0	0	384	384	759	758																	
		y	310	119	0	70	69	310																	
5	2	x	0	0	150	148																			
		y	252	75	0	175																			
6	2	x	852	503	387	355	300	45	0	0	55	145	329	407	539	597	668	736	784	849					
		y	412	414	451	505	451	325	221	154	53	16	25	35	38	51	20	0	3	194					
7	2	x	0	827	894	975	1097	1003	884	845	761	732	694	616	539	0									
		y	232	0	20	258	260	500	463	453	490	547	544	477	414	426									
8	2	x	151	97	0	75	126	191	271	316	359	436	442	694	726	1091	1094	1033	987	926					
		y	427	266	259	28	21	61	50	64	10	6	43	75	42	0	211	208	346	393					
9	2	x	0	745	619	590	522	6																	
		y	0	24	196	276	260	282																	

Data set for test problem Mao

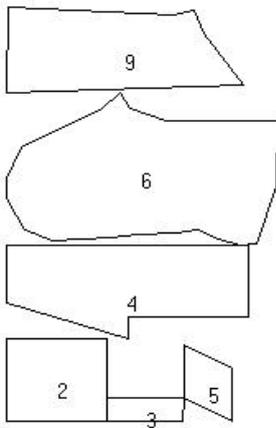


Figure: Problem: Mao

## References

Bounsaythip, C. and Maouche, S. 1997, Irregular Shape Nesting and Placing with Evolutionary Approach, In: Proceedings of the IEEE International Conference On Systems, Man and Cybernetics, vol. 4, pp. 3425-3430.