

Results for TSPLIB_3 (kTSP)

Keld Helsgaun, June 21, 2023

BKS from

Pandiri, V. and Singh, A.:

Two multi-start heuristics for the k-traveling salesman problem.

OPSEARCH, 57:1164-1204 (2020)

$k = \text{floor}(3n/4)$

Instance	k	BKS	LKH-3
a280	210	2043	1845
ali535	401	108369	89316
att48	36	6563	6563
att532	399	18858	16360
bayg29	21	999	999
bays29	21	1194	1194
berlin52	39	4174	4174
bier127	95	50324	49680
brazil58	43	11614	11614
brg180	135	1600	1480
burma14	10	1642	1643
ch130	97	3907	3876
ch150	112	4499	4366
d198	148	9386	9093
d493	369	23380	20931
d657	492	48611	32119
dantzig42	31	427	427
eil101	75	389	386
eil51	38	290	287
eil76	57	336	335
fl417	312	8242	7930
fri26	19	601	601
gil262	196	1672	1551
gr120	90	4598	4325
gr137	102	43912	43670
gr17	12	951	951
gr202	151	21563	20927
gr21	15	1501	1501
gr229	171	67848	64457
gr24	18	844	844
gr431	323	81144	73921
gr48	36	3104	3104
gr666	499	194897	146122
gr96	72	31437	31343
hk48	36	7278	7278

kroA100	75	14500	14379
kroA150	112	18210	17395
kroA200	150	20740	19211
kroB100	75	14744	14680
kroB150	112	17501	16879
kroB200	150	20508	18898
kroC100	75	14067	13892
kroD100	75	14171	14058
kroE100	75	14640	14622
lin105	78	9034	8983
lin318	238	29829	25303
p654	490	24514	21446
pa561	420	2031	1745
pcb442	331	37941	34358
pr107	80	36627	36292
pr124	93	39174	39008
pr136	102	69690	67910
pr144	108	41452	41194
pr152	114	57431	51826
pr226	169	47516	47142
pr264	198	39503	34346
pr299	224	35942	32738
pr439	329	64497	58006
pr76	57	64142	64142
rat195	146	1753	1667
rat575	431	5452	4730
rat783	587	8487	6160
rat99	74	861	857
rd100	75	5094	5094
rd400	300	11326	9972
si175	131	15625	15460
si535	401	35114	34320
st70	52	428	428
swiss42	31	760	760
ts225	168	85656	85656
tsp225	168	2665	2624
u159	119	27413	27096
u574	430	28376	23616
u724	543	37730	27469
ulysses16	12	3183	3184
ulysses22	16	2941	2942

The deviation in the results for burma14, ulysses16 and ulysses22 is probably due to different implementations of the GEO norm.