

## Results for Set\_I\_MINSUM (mTSP)

Keld Helsgaun, March 16, 2022

Instance	$m$	BKS	LKH-3	Gap (%)
mtsp51	3	445.99	445.99	0.00
mtsp51	5	471.69	471.69	0.00
mtsp51	10	580.72	<b>445.99</b>	<b>445.99</b>
mtsp100	3	21797.60	21797.62	0.00
mtsp100	5	23174.90	23174.9	0.00
mtsp100	10	26926.60	26926.63	0.00
mtsp100	20	38245.10	38245.06	0.00
rand100	3	8012.13	8012.13	0.00
rand100	5	8223.91	8223.92	0.00
rand100	10	9366.80	9366.8	0.00
rand100	20	13404.10	13404.05	0.00
mtsp150	3	37910.70	37910.72	0.00
mtsp150	5	38714.40	38714.38	0.00
mtsp150	10	42234.40	<b>42160.1</b>	<b>-0.18</b>
mtsp150	20	53351.30	<b>53305.89</b>	<b>-0.09</b>
mtsp150	30	68455.90	<b>68444.86</b>	<b>-0.02</b>
gtsp150	3	6574.20	6574.2	0.00
gtsp150	5	6655.11	6655.11	0.00
gtsp150	10	7332.11	7332.11	0.00
gtsp150	20	9512.23	9512.22	0.00
gtsp150	30	12966.50	12966.45	0.00
kroA200	3	29539.50	29539.45	0.00
kroA200	5	29916.20	29916.2	0.00
kroA200	10	32613.40	32613.36	0.00
kroA200	10	41439.20	41439.17	0.00
lin318	3	42404.90	<b>42404.55</b>	<b>0.00</b>
lin318	5	43315.00	43315	0.00
lin318	10	47325.50	47325.47	0.00
lin318	20	59839.20	59893.17	0.09
att532	3	28242.00	27986.41	-0.90
att532	5	28945.00	<b>28690.59</b>	<b>-0.88</b>
att532	10	31001.00	<b>30743.65</b>	<b>-0.83</b>
att532	20	36305.00	<b>36040.49</b>	<b>-0.73</b>
rat783	3	8880.03	8880.02	0.00
rat783	5	8984.80	<b>8964.79</b>	<b>-0.22</b>
rat783	10	9265.64	9265.63	0.00
rat783	20	10172.60	<b>10172.08</b>	<b>-0.01</b>
pcb1173	3	57167.20	57167.19	0.00
pcb1173	5	57628.80	57628.81	0.00
pcb1173	10	59241.90	59241.86	0.00
pcb1173	20	64063.60	<b>64052.05</b>	<b>-0.02</b>