

Table 1: Numerical results of Problem 5.1

Init(n)	IRTTCGPM	IRTTCGPMN	TTCGPM
	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $
0.1	22.2/92.8/0.007/8.09e-07	24.2/90.8/0.009/5.19e-07	34.0/111.2/0.006/6.88e-07
0.3	21.2/87.6/0.006/8.96e-07	18.8/73.0/0.007/5.25e-07	32.8/107.4/0.008/8.44e-07
0.5	22.2/92.4/0.008/9.05e-07	19.2/76.0/0.008/3.29e-07	33.8/110.4/0.010/7.40e-07
0.8	23.0/96.0/0.010/7.47e-07	16.2/66.2/0.009/8.46e-08	34.4/108.4/0.013/8.41e-07
1	19.0/80.0/0.010/8.13e-07	19.8/78.8/0.013/3.16e-07	30.0/96.0/0.013/9.81e-07
3	20.0/84.0/0.020/7.14e-07	21.6/84.2/0.027/1.04e-07	31.0/99.0/0.026/8.72e-07
5	26.0/109.0/0.037/7.70e-07	24.6/95.0/0.045/3.88e-07	32.0/102.0/0.038/5.78e-07
8	27.0/118.0/0.061/8.79e-07	21.6/83.0/0.062/1.09e-07	32.0/108.0/0.057/7.69e-07
10	27.0/118.0/0.078/9.71e-07	20.4/82.2/0.074/3.86e-07	33.0/112.0/0.076/5.75e-07

Table 2: Numerical results of Problem 5.2

Init(n)	IRTTCGPM	IRTTCGPMN	TTCGPM
	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $
0.1	29.8/136.6/0.005/6.91e-07	23.2/117.2/0.004/5.90e-07	52.0/205.6/0.006/7.80e-07
0.3	29.6/134.0/0.009/7.19e-07	22.8/115.0/0.009/3.22e-07	49.0/190.0/0.013/8.27e-07
0.5	29.8/138.0/0.011/8.16e-07	23.6/118.4/0.011/6.37e-07	50.0/194.0/0.016/7.66e-07
0.8	28.0/134.6/0.013/8.36e-07	24.6/127.4/0.016/4.90e-07	50.0/194.0/0.020/9.74e-07
1	32.6/143.8/0.017/9.28e-07	26.0/130.2/0.020/5.61e-07	51.0/198.0/0.025/7.84e-07
3	28.4/129.4/0.029/7.85e-07	26.2/135.6/0.038/6.76e-07	53.0/207.0/0.047/7.99e-07
5	27.8/129.8/0.042/7.39e-07	24.4/121.2/0.052/7.16e-07	52.0/206.0/0.067/9.01e-07
8	28.0/127.6/0.060/7.47e-07	24.6/122.6/0.080/6.92e-07	52.0/208.0/0.098/9.42e-07
10	36.4/156.6/0.097/5.77e-07	27.0/133.4/0.107/6.32e-07	55.8/225.2/0.134/7.83e-07

Table 3: Numerical results of Problem 5.3

Init(n)	IRTTGPM	IRTTGPMN	TTCGPM
	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $
0.1	67.2/383.6/0.020/7.58e-07	32.8/186.6/0.010/6.17e-07	114.6/512.4/0.025/9.25e-07
0.3	65.0/368.2/0.042/8.74e-07	32.2/186.4/0.024/8.55e-07	119.8/530.2/0.061/9.08e-07
0.5	67.2/380.6/0.066/7.80e-07	36.8/212.8/0.041/7.15e-07	123.0/545.0/0.096/7.80e-07
0.8	71.4/407.8/0.107/7.93e-07	37.0/210.6/0.061/8.21e-07	123.4/546.6/0.144/9.22e-07
1	67.6/382.8/0.131/8.29e-07	37.0/216.8/0.083/7.63e-07	124.8/552.6/0.192/8.62e-07
3	73.4/417.8/0.390/7.43e-07	36.2/210.8/0.218/6.36e-07	128.0/569.0/0.526/8.65e-07
5	75.0/431.0/0.651/8.14e-07	37.4/218.6/0.364/7.32e-07	130.0/578.0/0.870/8.81e-07
8	71.0/407.8/0.957/8.83e-07	36.2/214.8/0.606/8.07e-07	131.0/587.0/1.406/9.20e-07
10	68.6/390.6/1.206/8.56e-07	34.6/206.0/0.680/6.61e-07	132.0/591.0/1.797/8.71e-07

Table 4: Numerical results of Problem 5.4

Init(n)	IRTTGPM	IRTTGPMN	TTCGPM
	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $
0.1	89.4/456.6/0.017/9.06e-07	51.2/267.6/0.010/7.61e-07	237.4/994.6/0.033/9.61e-07
0.3	93.8/482.0/0.035/8.75e-07	58.6/307.0/0.025/8.27e-07	246.0/1030.2/0.077/9.68e-07
0.5	90.2/462.4/0.049/8.23e-07	54.6/289.0/0.034/8.68e-07	250.0/1047.0/0.114/9.69e-07
0.8	95.4/492.6/0.076/8.75e-07	63.0/350.4/0.059/8.04e-07	253.8/1063.2/0.166/9.37e-07
1	88.2/451.6/0.092/8.95e-07	61.2/328.8/0.075/9.10e-07	252.8/1059.2/0.221/9.52e-07
3	99.8/515.4/0.262/8.43e-07	67.2/356.6/0.201/8.40e-07	260.6/1093.4/0.562/9.79e-07
5	99.0/511.6/0.417/9.08e-07	64.8/350.0/0.319/8.13e-07	267.4/1123.6/0.927/9.65e-07
8	115.2/591.8/0.759/8.77e-07	68.6/366.8/0.524/8.76e-07	268.0/1126.0/1.451/9.91e-07
10	110.2/567.2/0.917/8.77e-07	71.2/388.8/0.699/7.98e-07	270.2/1136.8/1.861/9.86e-07

Table 5: Numerical results of Problem 5.5

Init(n)	IRTTGPM	IRTTGPMN	TTCGPM
	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $
0.1	89.4/456.6/0.017/9.06e-07	51.2/267.6/0.010/7.61e-07	237.4/994.6/0.033/9.61e-07
0.3	93.8/482.0/0.035/8.75e-07	58.6/307.0/0.025/8.27e-07	246.0/1030.2/0.077/9.68e-07
0.5	90.2/462.4/0.049/8.23e-07	54.6/289.0/0.034/8.68e-07	250.0/1047.0/0.114/9.69e-07
0.8	95.4/492.6/0.076/8.75e-07	63.0/350.4/0.059/8.04e-07	253.8/1063.2/0.166/9.37e-07
1	88.2/451.6/0.092/8.95e-07	61.2/328.8/0.075/9.10e-07	252.8/1059.2/0.221/9.52e-07
3	99.8/515.4/0.262/8.43e-07	67.2/356.6/0.201/8.40e-07	260.6/1093.4/0.562/9.79e-07
5	99.0/511.6/0.417/9.08e-07	64.8/350.0/0.319/8.13e-07	267.4/1123.6/0.927/9.65e-07
8	115.2/591.8/0.759/8.77e-07	68.6/366.8/0.524/8.76e-07	268.0/1126.0/1.451/9.91e-07
10	110.2/567.2/0.917/8.77e-07	71.2/388.8/0.699/7.98e-07	270.2/1136.8/1.861/9.86e-07

Table 6: Numerical results of Problem 5.6

Init(n)	IRTTGPM	IRTTGPMN	TTCGPM
	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $	Itr/NF/Tcpu/ $\ F^*\ $
0.1	137.4/1014.4/1.335/8.14e-07	35.4/166.6/0.219/7.45e-07	284.0/1715.0/2.267/9.24e-07
0.3	448.2/4920.2/47.769/8.57e-07	32.6/167.4/1.616/5.11e-07	879.0/8393.0/81.211/7.49e-07
0.5	894.0/11054.0/280.934/7.01e-07	39.6/187.8/4.773/6.93e-07	1710.0/18879.0/479.865/7.70e-07
0.8	1795.2/24141.0/1520.532/7.40e-07	43.0/213.4/13.437/6.30e-07	NaN/NaN/NaN/NaN
10	NaN/NaN/NaN/NaN	39.2/196.2/18.917/8.28e-07	NaN/NaN/NaN/NaN

Table 7: Numerical results of Problem 5.7

Init(n)	IRTTGPM	IRTTGPMN	TTCGPM
	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $
0.1	22.4/113.4/0.003/7.92e-07	22.6/115.6/0.004/8.46e-07	34.6/133.2/0.004/4.51e-07
0.3	23.0/117.0/0.007/7.53e-07	21.2/109.0/0.007/7.31e-07	32.4/125.2/0.008/6.01e-07
0.5	23.4/118.4/0.008/8.69e-07	19.8/100.2/0.009/7.13e-07	31.2/123.8/0.009/7.12e-07
0.8	25.4/127.8/0.011/8.21e-07	22.0/110.8/0.012/4.95e-07	29.6/118.2/0.011/6.49e-07
1	25.6/128.8/0.014/9.09e-07	20.6/102.0/0.013/4.67e-07	31.2/121.2/0.014/6.23e-07
3	26.6/133.8/0.027/8.85e-07	22.2/112.6/0.029/6.47e-07	29.6/118.6/0.025/5.45e-07
5	29.0/151.0/0.045/6.09e-07	24.0/122.4/0.047/8.22e-07	32.4/131.0/0.041/3.04e-07
8	29.0/151.0/0.066/7.72e-07	21.6/112.2/0.066/4.74e-07	33.4/134.6/0.061/6.09e-07
10	29.0/151.0/0.082/8.64e-07	21.2/110.6/0.082/6.48e-07	35.8/147.0/0.082/6.79e-07

Table 8: Numerical results of Problem 5.8

Init(n)	IRTTGPM	IRTTGPMN	TTCGPM
	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $	Iter/NF/Tcpu/ $\ F^*\ $
0.1	42.6/261.0/0.011/8.13e-07	21.0/137.6/0.005/8.04e-07	63.8/317.8/0.011/6.91e-07
0.3	43.2/265.0/0.022/7.14e-07	21.2/137.4/0.012/6.27e-07	68.0/343.8/0.028/8.02e-07
0.5	42.8/261.6/0.032/7.54e-07	23.0/150.8/0.020/6.12e-07	71.2/367.2/0.045/7.68e-07
0.8	43.6/267.4/0.048/9.04e-07	22.4/152.2/0.029/5.69e-07	76.8/395.6/0.071/7.59e-07
1	43.4/266.8/0.063/8.09e-07	23.6/167.6/0.042/8.19e-07	75.2/391.4/0.093/8.85e-07
3	46.4/285.0/0.174/7.88e-07	25.6/178.4/0.115/5.66e-07	83.6/452.2/0.277/7.64e-07
5	49.2/309.4/0.307/7.97e-07	27.4/193.4/0.204/7.36e-07	95.0/528.0/0.525/8.00e-07
8	48.2/289.4/0.452/7.76e-07	23.8/160.2/0.266/7.78e-07	73.6/370.8/0.580/8.07e-07
10	46.4/270.8/0.530/8.62e-07	26.2/191.4/0.395/7.37e-07	76.0/396.2/0.769/7.43e-07