Notes: 'n' represents the dimension of the corresponding problem. 'NI' represents the total number of iterations. 'NF' represents the number of the function evaluation. 'Time' represents the running time of the algorithm. '$\|g^\star\|$' represents the gradient value for the solution. The values of 'NI', 'NF', 'Time' and '$\|g^\star\|$' are set as 'NaN' if and only if the number of iterations is greater than 2000.

Table 1: Numerical results for the unconstrained optimization problems for Group A

Problem/n	SCGMrf1 NI/NF/Time/$\|g^\star\|$	SCGMrf2 NI/NF/Time/$\|g^\star\|$	SCGMrf3 NI/NF/Time/$\|g^\star\|$	SCGMrf-NG NI/NF/Time/$\|g^\star\|$
cosine/3900	29/99/0.032/7.00e-07	33/101/0.020/4.87e-07	34/111/0.021/5.34e-07	23/89/0.018/5.73e-07
cosine/43000	27/94/0.131/2.04e-07	19/84/0.132/7.93e-07	29/99/0.159/8.62e-07	26/106/0.147/1.60e-07
dixmaana/96000	16/87/1.491/8.36e-07	15/85/1.397/3.74e-07	18/90/1.488/6.28e-07	17/89/1.484/8.15e-07
dixmaana/120000	19/89/3.253/5.64e-07	22/94/4.636/7.96e-07	22/92/4.392/8.62e-07	20/91/3.386/1.52e-07
dixmaanb/24900	18/90/0.944/1.49e-07	20/88/0.910/7.86e-07	16/80/0.884/1.84e-07	18/90/0.993/8.40e-09
dixmaanb/43500	20/89/1.705/4.80e-07	17/81/1.678/3.97e-08	15/73/1.498/3.99e-07	20/89/1.832/4.83e-07
dixmaanb/54000	18/86/2.044/2.15e-07	20/90/2.192/2.27e-07	20/90/2.168/2.72e-07	18/86/2.064/2.15e-07
dixmaanc/30000	17/93/1.327/4.90e-07	15/88/1.214/9.76e-08	17/93/1.279/9.33e-07	17/93/1.194/4.90e-07
dixmaanc/150000	17/91/6.030/4.53e-07	17/89/5.830/9.37e-07	16/89/5.915/8.48e-07	17/91/6.186/4.53e-07
dixmaanc/300000	22/95/11.574/9.92e-07	21/94/10.418/3.97e-07	16/90/11.214/6.69e-07	23/95/12.088/5.29e-07
dixmaand/300	21/93/0.063/8.34e-08	14/71/0.012/5.25e-07	15/73/0.012/8.34e-07	21/93/0.017/5.26e-08
dixmaand/7200	20/87/0.237/4.23e-07	16/79/0.185/9.95e-07	18/85/0.204/1.87e-07	20/87/0.236/4.23e-07
dixmaand/13650	17/85/0.384/1.04e-08	19/82/0.393/9.60e-07	18/86/0.452/1.51e-07	17/85/0.519/8.12e-09
dixmaane/90	92/198/0.057/9.08e-07	89/182/0.017/8.41e-07	84/183/0.016/5.15e-07	90/190/0.018/7.31e-07
dixmaane/2100	496/1054/0.781/3.38e-07	425/863/0.735/7.56e-07	386/863/0.652/4.04e-07	447/921/0.660/8.10e-07
dixmaanf/6	22/70/0.047/4.69e-07	23/71/0.009/9.63e-07	21/72/0.012/7.39e-07	22/70/0.012/4.69e-07
dixmaanf/15	40/95/0.007/6.01e-07	40/92/0.006/6.58e-07	34/84/0.005/9.79e-07	42/99/0.008/8.00e-07
dixmaanf/60	65/151/0.012/6.59e-07	73/158/0.012/4.02e-07	70/152/0.012/5.72e-07	66/139/0.011/5.87e-07
dixmaang/150	100/209/0.048/9.36e-07	102/215/0.023/9.68e-07	95/216/0.025/8.80e-07	87/188/0.031/9.12e-07
dixmaanh/9	32/85/0.030/7.61e-07	35/88/0.005/9.59e-07	32/85/0.005/6.42e-07	35/90/0.005/6.20e-07
dixmaanh/90	85/171/0.015/9.74e-07	80/168/0.014/9.16e-07	74/158/0.014/9.45e-07	77/165/0.015/7.78e-07
dixmaanh/150	100/223/0.025/9.11e-07	91/202/0.023/8.04e-07	93/210/0.023/8.33e-07	99/215/0.024/7.02e-07
dixmaani/9	72/165/0.038/8.53e-07	83/174/0.009/4.48e-07	64/143/0.009/7.27e-07	99/217/0.016/6.08e-07
dixmaanj/45	222/492/0.061/9.13e-07	575/1181/0.083/8.02e-07	295/659/0.047/8.84e-07	338/740/0.056/9.74e-07
dixmaank/3000	NaN/NaN/NaN/NaN	NaN/NaN/NaN/NaN	294/637/0.406/8.52e-07	NaN/NaN/NaN/NaN
dixmaank/6000	466/986/2.158/8.94e-07	490/994/1.984/9.16e-07	393/868/1.668/9.25e-07	362/750/1.546/9.24e-07
dixmaank/12000	331/688/3.558/7.46e-07	480/958/4.164/7.57e-07	372/826/3.794/5.20e-07	569/1215/5.327/5.45e-07
dixmaanl/18000	604/1240/10.894/4.75e-07	584/1188/9.508/9.43e-07	527/1085/8.745/7.58e-07	440/937/7.908/7.63e-07
dixmaanl/21000	969/2055/19.708/8.61e-07	1207/2496/23.307/8.81e-07	918/2116/20.173/6.14e-07	893/1926/17.206/9.52e-07
dixmaanl/24000	520/1093/11.283/9.65e-07	507/1016/10.920/5.80e-07	560/1148/12.174/9.94e-07	698/1448/15.612/6.37e-07
dixon3dq/4	33/89/0.025/8.52e-07	46/97/0.004/4.30e-07	33/76/0.003/9.60e-07	34/87/0.003/7.16e-07
dixon3dq/8	70/146/0.006/3.19e-07	89/193/0.006/8.45e-07	84/192/0.005/8.68e-07	89/204/0.008/8.59e-07
dqdrtic/1000000	67/235/4.349/9.27e-07	72/226/4.075/9.35e-07	117/332/5.530/9.59e-07	126/359/5.407/8.47e-07
dqdrtic/2200000	85/280/9.174/7.45e-07	101/310/10.469/6.51e-07	91/280/9.729/9.24e-07	77/261/8.534/6.94e-07
dqdrtic/4700000	71/246/11.637/9.03e-08	80/252/16.290/4.99e-07	101/289/20.361/9.85e-07	102/326/15.516/3.31e-07
dqrtic/64	14/77/0.014/4.24e-07	17/76/0.004/1.55e-07	16/76/0.006/1.43e-07	14/77/0.006/4.24e-07
dqrtic/6800	37/151/0.468/6.40e-07	36/150/0.372/2.60e-07	44/151/0.288/4.04e-07	45/152/0.413/9.30e-07
dqrtic/8000	41/163/0.523/2.84e-07	37/156/0.444/1.97e-07	39/152/0.439/2.25e-07	45/168/0.582/4.13e-07
edensch/500	35/119/0.043/8.06e-07	30/90/0.021/4.40e-07	30/96/0.020/6.18e-07	34/98/0.024/7.59e-07
edensch/15000	46/260/1.692/9.68e-07	52/267/1.773/2.03e-07	43/212/1.392/4.37e-07	37/153/1.020/8.96e-07
edensch/35000	65/416/5.821/7.25e-07	59/324/4.508/7.80e-07	53/289/3.995/6.39e-07	52/305/4.175/8.95e-07
eg2/7	44/104/0.017/7.39e-07	33/94/0.005/4.10e-07	36/94/0.007/5.07e-07	37/92/0.003/8.16e-07
fletchcr/5000	90/451/0.112/5.70e-07	89/540/0.057/9.98e-07	117/842/0.086/6.16e-07	77/414/0.037/6.03e-07
fletchcr/100000	90/358/0.376/5.63e-07	139/1226/1.206/5.69e-07	103/210/0.229/7.25e-07	130/963/0.955/9.56e-07
fletchcr/210000	253/2249/8.099/1.12e-07	86/342/1.443/7.46e-07	169/1327/5.017/1.64e-07	395/3765/13.302/7.27e-08
freuroth/2	113/381/0.025/8.33e-07	100/335/0.010/7.09e-07	187/505/0.026/5.01e-07	150/717/0.026/8.11e-07
genrose/4	149/388/0.021/6.30e-07	291/675/0.021/7.33e-07	246/574/0.017/5.09e-07	200/463/0.015/7.44e-07
quartc/8000	41/163/0.366/2.84e-07	37/156/0.337/1.97e-07	39/152/0.333/2.25e-07	45/168/0.373/4.13e-07
quartc/15300	49/171/0.738/2.60e-07	51/184/0.790/2.18e-07	46/169/0.756/3.70e-07	57/186/0.817/9.79e-07
quartc/40000	50/192/2.344/5.66e-07	55/183/2.409/4.65e-07	38/158/2.075/3.25e-07	60/228/2.913/4.67e-07
tridia/7	79/166/0.015/5.80e-07	70/152/0.005/7.87e-07	70/157/0.006/6.75e-07	73/157/0.005/7.17e-07
woods/2500	271/690/0.067/7.74e-07	401/987/0.056/6.08e-07	434/1073/0.058/6.23e-07	346/911/0.048/5.29e-07
woods/25000	496/1149/0.312/8.46e-07	402/999/0.242/6.89e-07	321/793/0.190/7.46e-07	375/937/0.220/9.36e-07
woods/250000	274/699/3.125/7.76e-07	455/1167/4.683/9.55e-07	298/736/3.251/9.11e-07	294/738/3.046/6.89e-07
bdexp/10000	2/17/0.062/2.68e-61	2/17/0.021/2.68e-61	2/17/0.015/2.68e-61	2/17/0.017/2.68e-61
bdexp/100000	2/12/0.144/4.58e-106	2/12/0.201/4.58e-106	2/12/0.199/4.58e-106	2/12/0.196/4.58e-106
bdexp/500000	2/12/0.922/1.55e-120	2/12/0.914/1.55e-120	2/12/0.897/1.55e-120	2/12/0.946/1.55e-120
exdenschnf/22000	28/99/0.069/8.17e-07	27/106/0.032/2.94e-07	23/97/0.028/7.27e-07	29/108/0.031/3.78e-07
exdenschnf/1000000	28/112/2.488/3.02e-07	33/120/2.776/1.24e-08	31/118/2.794/8.20e-07	27/112/2.578/7.98e-07
exdenschnf/2250000	27/115/4.212/7.45e-07	26/112/2.207/7.26e-07	41/125/2.639/7.95e-07	28/116/4.929/7.12e-07
exdenschnb/10000	15/80/0.027/8.30e-07	15/80/0.010/8.30e-07	15/80/0.011/8.30e-07	15/80/0.011/8.30e-07
exdenschnb/300000	22/88/0.303/7.82e-07	24/97/0.398/7.90e-07	23/94/0.384/8.16e-07	24/94/0.423/8.65e-07
exdenschnb/500000	18/88/0.623/9.79e-07	20/93/0.677/8.62e-07	22/94/0.670/3.98e-07	18/88/0.644/9.79e-07
genquartic/4000	25/94/0.028/9.17e-07	28/105/0.011/7.21e-07	23/95/0.011/1.61e-07	21/90/0.016/3.74e-07
genquartic/38000	20/90/0.078/6.46e-08	19/88/0.041/1.83e-07	24/92/0.042/4.33e-07	20/90/0.038/6.14e-08
genquartic/400000	18/89/0.598/3.22e-07	20/92/0.613/1.83e-07	22/92/0.657/1.72e-07	20/91/0.670/3.88e-08
biggsb1/3	21/65/0.017/5.92e-07	20/57/0.004/3.76e-07	22/64/0.004/8.53e-07	21/65/0.002/5.92e-07
sine/20	20/71/0.020/2.37e-07	19/68/0.004/9.57e-07	23/76/0.006/8.83e-07	19/69/0.003/4.55e-07
sine/100	37/110/0.008/9.44e-07	28/92/0.004/9.82e-07	36/103/0.004/2.07e-07	34/106/0.007/8.07e-07
sine/490	49/113/0.014/6.03e-07	65/155/0.017/3.87e-07	70/175/0.016/4.78e-07	57/146/0.016/7.00e-07
fletcbv3/5	4/17/0.020/5.28e-07	3/14/0.002/9.13e-07	4/17/0.001/8.69e-07	4/17/0.001/5.28e-07
fletcbv3/20	123/249/0.010/4.97e-07	135/255/0.010/7.29e-07	138/272/0.010/6.80e-07	151/291/0.012/5.34e-07
nonscomp/450	51/123/0.015/7.53e-07	49/117/0.008/9.09e-07	48/119/0.008/4.67e-07	49/122/0.008/4.05e-07
nonscomp/1000	51/138/0.010/9.46e-07	46/130/0.007/8.85e-07	55/141/0.010/8.58e-07	52/141/0.011/6.40e-07
nonscomp/5050	53/132/0.015/8.85e-07	58/138/0.012/9.59e-07	48/126/0.016/7.59e-07	56/138/0.015/9.53e-07
power1/3	33/85/0.011/6.77e-07	32/81/0.003/8.43e-07	31/80/0.003/5.62e-07	38/91/0.003/8.37e-07
raydan1/30	60/135/0.010/9.21e-07	54/120/0.004/3.78e-07	44/105/0.003/9.58e-07	55/129/0.004/3.39e-07
raydan1/60	69/148/0.006/6.28e-07	80/162/0.005/2.95e-07	76/165/0.005/7.15e-07	75/168/0.006/5.26e-07
raydan1/120	100/212/0.007/7.96e-07	111/213/0.008/7.53e-07	100/217/0.007/7.23e-07	96/211/0.007/9.97e-07
raydan2/5000	12/81/0.031/3.54e-07	12/81/0.023/3.54e-07	12/81/0.028/3.54e-07	12/81/0.026/3.54e-07
raydan2/20000	19/96/0.119/7.69e-08	19/96/0.111/7.69e-08	19/96/0.110/7.69e-08	19/96/0.108/7.69e-08
raydan2/200000	25/133/2.241/9.87e-07	64/367/6.436/1.69e-07	19/105/1.911/8.20e-08	68/448/7.408/4.29e-07
diagonal1/50	85/257/0.025/6.28e-07	75/182/0.009/9.23e-07	103/418/0.021/7.90e-07	88/294/0.013/8.91e-07
diagonal1/100	124/448/0.018/5.63e-07	112/359/0.013/6.33e-07	114/399/0.014/7.28e-07	110/326/0.016/9.52e-07
diagonal1/400	393/2496/0.232/8.67e-07	463/3353/0.255/9.15e-07	343/2160/0.140/9.83e-07	437/3140/0.230/5.87e-07
diagonal2/30	47/103/0.012/9.52e-07	47/105/0.006/9.38e-07	41/98/0.004/6.57e-07	54/117/0.005/7.44e-07
diagonal3/200	195/615/0.035/9.70e-07	259/1137/0.047/9.92e-07	223/1069/0.049/9.31e-07	197/837/0.046/9.30e-07
diagonal3/400	318/1318/0.117/8.25e-07	368/1874/0.134/6.75e-07	299/1251/0.106/9.55e-07	286/1541/0.155/8.41e-07
diagonal3/2000	NaN/NaN/NaN/NaN	855/5753/1.114/9.94e-07	1183/9279/1.888/9.40e-07	1585/13932/2.946/9.81e-07
bv/500	149/325/0.188/7.85e-07	139/277/0.154/9.96e-07	146/335/0.170/9.23e-07	137/293/0.143/9.34e-07
ie/80	15/57/0.191/6.99e-07	15/45/0.119/5.90e-07	13/53/0.140/6.03e-07	15/57/0.157/6.99e-07
singx/100	1822/4074/0.302/6.57e-07	1383/3193/0.260/9.51e-07	965/2316/0.163/9.16e-07	NaN/NaN/NaN/NaN
lin/30	17/79/0.042/7.00e-07	17/79/0.015/7.05e-07	17/79/0.010/7.03e-07	17/79/0.013/7.22e-07
lin/300	15/70/0.167/4.76e-07	15/70/0.149/4.79e-10	16/71/0.134/1.43e-09	15/70/0.125/4.76e-10
osb2/11	1682/3512/0.151/9.51e-07	1613/3321/0.082/9.18e-07	842/1868/0.043/7.48e-07	1198/2549/0.065/9.81e-07
pen1/200	154/805/0.061/8.05e-07	170/907/0.055/8.39e-07	326/1078/0.064/9.60e-08	129/622/0.029/5.49e-07
pen1/2000	124/497/5.407/1.06e-07	130/481/5.485/7.85e-07	85/397/6.251/6.11e-07	143/652/11.745/6.18e-07
pen2/30	463/1488/0.036/7.30e-07	647/2159/0.038/7.20e-07	760/2104/0.039/9.23e-07	599/1937/0.033/7.01e-07
pen2/70	457/1481/0.042/9.73e-07	655/1932/0.053/8.58e-07	944/2443/0.066/9.12e-07	679/1984/0.052/9.90e-07
trid/1000	45/105/0.222/6.71e-07	44/107/0.210/9.40e-07	39/103/0.202/2.73e-07	43/108/0.212/7.01e-07

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Table 2: Numerical results for the unconstrained optimization problems for Group B

Problem/n	SCGMrf3 NI/NF/Time/$\|g^\star\|$	HZ NI/NF/Time/$\|g^\star\|$	KD NI/NF/Time/$\|g^\star\|$	MTTLS NI/NF/Time/$\|g^\star\|$
cosine/3900	34/111/0.021/5.34e-07	33/104/0.020/9.65e-07	29/108/0.028/4.70e-07	167/628/0.089/2.28e-07
cosine/43000	29/99/0.159/8.62e-07	37/118/0.174/1.19e-07	41/122/0.172/1.76e-07	587/1992/2.683/1.87e-07
dixmaana/96000	18/90/1.488/6.28e-07	20/102/1.771/8.62e-07	24/102/1.815/6.99e-07	20/88/1.524/1.66e-07
dixmaana/120000	22/92/4.392/8.62e-07	23/95/4.598/2.03e-07	20/95/4.759/1.01e-07	19/90/4.379/7.59e-07
dixmaanb/24900	16/80/0.884/1.84e-07	21/89/1.030/9.34e-07	21/108/1.237/7.76e-07	25/94/1.090/6.57e-07
dixmaanb/43500	15/73/1.498/3.99e-07	22/91/1.664/2.37e-07	14/82/1.530/9.27e-07	25/94/1.872/1.27e-07
dixmaanb/54000	20/90/2.168/2.72e-07	24/92/2.149/8.18e-07	21/90/2.199/3.61e-07	25/95/2.324/5.38e-07
dixmaanc/30000	17/93/1.279/9.33e-07	24/94/1.237/7.20e-07	20/91/1.253/3.88e-07	19/90/1.232/7.99e-08
dixmaanc/150000	16/89/5.915/8.48e-07	23/95/6.191/2.41e-07	20/92/6.082/3.13e-08	28/102/6.775/7.38e-07
dixmaanc/300000	16/90/11.214/6.69e-07	22/95/11.741/8.41e-07	22/104/12.582/7.37e-07	25/97/11.501/3.69e-07
dixmaand/300	15/73/0.012/8.34e-07	22/80/0.013/6.91e-07	19/79/0.012/8.51e-07	21/80/0.015/5.40e-07
dixmaand/7200	18/85/0.204/1.87e-07	21/89/0.232/1.88e-07	18/87/0.219/3.26e-07	22/91/0.199/2.22e-07
dixmaand/13650	18/86/0.452/1.51e-07	26/96/0.470/2.28e-07	18/87/0.387/8.72e-07	22/88/0.424/5.77e-07
dixmaane/90	84/183/0.016/5.15e-07	129/263/0.022/9.94e-07	92/172/0.015/2.53e-07	90/176/0.015/8.84e-07
dixmaane/2100	386/863/0.652/4.04e-07	469/974/0.749/9.45e-07	325/625/0.460/6.84e-07	379/687/0.518/8.77e-07
dixmaanf/6	21/72/0.012/7.39e-07	34/87/0.006/2.85e-07	22/69/0.004/8.26e-07	24/75/0.006/6.14e-07
dixmaanf/15	34/84/0.005/9.79e-07	54/111/0.007/9.21e-07	37/91/0.005/8.28e-07	41/99/0.007/4.24e-07
dixmaanf/60	70/152/0.012/5.72e-07	79/176/0.013/8.25e-07	58/120/0.009/6.03e-07	64/126/0.009/9.14e-07
dixmaang/150	95/216/0.025/8.80e-07	130/265/0.031/6.17e-07	99/197/0.022/5.13e-07	98/189/0.020/8.97e-07
dixmaanh/9	32/85/0.005/6.42e-07	40/106/0.006/5.26e-07	33/84/0.005/9.98e-07	37/92/0.005/7.99e-07
dixmaanh/90	74/158/0.014/9.45e-07	81/180/0.015/9.67e-07	72/149/0.013/6.54e-07	75/155/0.014/6.91e-07
dixmaanh/150	93/210/0.023/8.33e-07	95/222/0.024/9.40e-07	90/190/0.023/9.04e-07	100/211/0.023/9.30e-07
dixmaani/9	64/143/0.009/7.27e-07	102/223/0.013/7.04e-07	78/166/0.009/8.10e-07	65/132/0.008/7.38e-07
dixmaanj/45	295/659/0.047/8.84e-07	321/700/0.048/7.06e-07	317/607/0.043/6.11e-07	291/534/0.038/4.75e-07
dixmaank/3000	294/637/0.406/8.52e-07	1320/2841/1.885/9.26e-07	1574/3087/2.040/7.75e-07	NaN/NaN/NaN/NaN
dixmaank/6000	393/868/1.668/9.25e-07	872/1832/3.871/9.71e-07	140/290/0.529/7.21e-07	162/298/0.580/6.60e-07
dixmaank/12000	372/826/3.794/5.20e-07	740/1550/9.113/7.71e-07	616/1221/6.598/3.79e-07	575/1191/7.090/9.70e-07
dixmaanl/18000	527/1085/8.745/7.58e-07	916/1971/16.889/9.13e-07	113/245/1.451/8.08e-07	378/761/5.082/7.80e-07
dixmaanl/21000	918/2116/20.173/6.14e-07	885/1908/17.276/8.23e-07	NaN/NaN/NaN/NaN	777/1435/11.836/9.69e-07
dixmaanl/24000	560/1148/12.174/9.94e-07	884/1954/21.654/9.82e-07	608/1185/13.668/7.21e-07	1062/2152/23.847/8.56e-07
dixon3dq/4	33/76/0.003/9.60e-07	58/117/0.003/4.99e-07	40/87/0.004/6.53e-07	38/99/0.004/5.02e-07
dixon3dq/8	84/192/0.005/8.68e-07	99/218/0.007/9.38e-07	64/133/0.005/7.94e-07	85/206/0.006/9.83e-07
dqdrtic/1000000	117/332/5.530/9.59e-07	152/422/7.243/6.73e-07	95/298/4.973/3.28e-07	92/343/5.508/4.01e-07
dqdrtic/2200000	91/280/9.729/9.24e-07	74/242/8.456/7.66e-07	86/285/10.150/8.20e-07	82/316/10.928/8.44e-07
dqdrtic/4700000	101/289/20.361/9.85e-07	106/300/22.501/6.94e-07	81/271/20.788/6.17e-07	68/276/19.748/1.09e-07
dqrtic/64	16/76/0.006/1.43e-07	25/89/0.004/1.10e-07	20/79/0.005/7.73e-07	43/165/0.018/3.67e-07
dqrtic/6800	44/151/0.288/4.04e-07	67/199/0.497/7.12e-07	53/168/0.325/1.01e-07	118/471/1.234/3.97e-07
dqrtic/8000	39/152/0.439/2.25e-07	63/190/0.589/3.23e-07	58/175/0.559/7.32e-07	191/737/2.477/8.93e-07
edensch/500	30/96/0.020/6.18e-07	41/107/0.034/9.39e-07	49/292/0.068/8.93e-07	52/265/0.060/8.43e-07
edensch/15000	43/212/1.392/4.37e-07	40/192/1.263/9.11e-07	45/226/1.495/5.03e-07	97/657/4.273/3.88e-07
edensch/35000	53/289/3.995/6.39e-07	65/339/4.739/7.59e-07	69/399/5.314/6.81e-07	44/190/2.635/8.87e-07
eg2/7	36/94/0.007/5.07e-07	90/240/0.009/9.97e-07	48/115/0.004/9.89e-07	67/282/0.012/9.98e-07
fletchcr/5000	117/842/0.086/6.16e-07	124/788/0.068/1.11e-07	107/760/0.068/8.94e-07	391/3698/0.325/5.65e-07
fletchcr/100000	103/210/0.229/7.25e-07	267/2385/2.362/2.70e-07	268/1779/1.800/1.66e-07	332/3231/3.148/9.20e-07
fletchcr/210000	169/1327/5.017/1.64e-07	224/2004/7.062/3.72e-07	274/2624/8.880/7.09e-07	191/1785/5.619/3.67e-07
freuroth/2	187/505/0.026/5.01e-07	226/625/0.019/6.48e-07	89/448/0.021/2.00e-07	62/289/0.009/9.36e-07
genrose/4	246/574/0.017/5.09e-07	215/518/0.017/7.28e-07	114/312/0.011/9.02e-07	123/432/0.014/7.59e-07
quartc/8000	39/152/0.333/2.25e-07	63/190/0.417/3.23e-07	58/175/0.390/7.32e-07	191/737/1.616/8.93e-07
quartc/15300	46/169/0.756/3.70e-07	72/221/1.085/2.95e-07	65/205/0.902/7.70e-07	168/839/3.742/7.64e-07
quartc/40000	38/158/2.075/3.25e-07	105/312/4.268/4.07e-07	81/248/4.236/9.90e-07	256/909/15.653/7.53e-07
tridia/7	70/157/0.006/6.75e-07	110/221/0.008/3.86e-07	79/166/0.006/8.15e-07	90/280/0.009/7.60e-07
woods/2500	434/1073/0.058/6.23e-07	486/1211/0.072/7.29e-07	183/448/0.030/4.73e-07	205/819/0.042/4.79e-07
woods/25000	321/793/0.190/7.46e-07	353/848/0.219/9.67e-07	311/741/0.190/9.19e-07	169/657/0.148/6.74e-07
woods/250000	298/736/3.251/9.11e-07	382/945/4.269/5.11e-07	386/920/3.968/3.83e-07	488/1845/7.438/5.06e-07
bdexp/10000	2/17/0.015/2.68e-61	2/17/0.015/1.25e-63	2/17/0.015/7.79e-63	2/17/0.014/3.57e-64
bdexp/100000	2/12/0.199/4.58e-106	2/12/0.164/4.45e-106	2/12/0.170/4.50e-106	2/12/0.160/4.45e-106
bdexp/500000	2/12/0.897/1.55e-120	2/12/0.895/1.54e-120	2/12/0.948/1.55e-120	2/12/0.915/1.54e-120
exdenschnf/22000	23/97/0.028/7.27e-07	30/107/0.033/3.25e-07	25/105/0.031/5.82e-07	36/148/0.046/9.49e-08
exdenschnf/1000000	31/118/2.794/8.20e-07	32/120/2.783/2.30e-07	25/116/2.583/3.84e-07	54/197/2.392/9.71e-07
exdenschnf/2250000	41/125/2.639/7.95e-07	38/124/6.133/8.43e-07	27/123/6.154/3.49e-07	53/192/9.577/9.96e-07
exdenschnb/10000	15/80/0.011/8.30e-07	31/108/0.018/9.40e-07	19/91/0.014/2.74e-07	26/94/0.019/3.76e-07
exdenschnb/300000	23/94/0.384/8.16e-07	29/101/0.485/9.82e-07	26/97/0.441/2.45e-08	33/106/0.489/6.70e-07
exdenschnb/500000	22/94/0.670/3.98e-07	20/92/0.637/7.88e-07	21/95/0.726/4.15e-08	17/89/0.602/9.63e-07
genquartic/4000	23/95/0.011/1.61e-07	28/98/0.017/7.43e-07	27/103/0.016/3.12e-07	32/134/0.024/6.21e-07
genquartic/38000	24/92/0.042/4.33e-07	27/96/0.043/7.11e-07	20/99/0.041/9.77e-07	20/88/0.037/7.17e-07
genquartic/400000	22/92/0.657/1.72e-07	26/98/0.740/6.47e-07	18/90/0.685/8.09e-07	19/89/0.664/3.19e-07
biggsb1/3	22/64/0.004/8.53e-07	35/74/0.005/4.52e-07	28/70/0.005/8.52e-07	33/109/0.021/1.51e-07
sine/20	23/76/0.006/8.83e-07	NaN/NaN/NaN/NaN	23/76/0.004/5.97e-07	NaN/NaN/NaN/NaN
sine/100	36/103/0.004/2.07e-07	29/89/0.008/4.29e-07	24/81/0.005/3.80e-07	73/311/0.024/8.08e-07
sine/490	70/175/0.016/4.78e-07	74/179/0.024/7.82e-07	691/2007/0.183/8.54e-07	65/206/0.029/9.45e-07
fletcbv3/5	4/17/0.001/8.69e-07	4/17/0.001/8.78e-07	5/19/0.002/8.15e-07	63/300/0.014/9.49e-07
fletcbv3/20	138/272/0.010/6.80e-07	145/282/0.011/5.65e-07	126/294/0.011/9.21e-07	NaN/NaN/NaN/NaN
nonscomp/450	48/119/0.008/4.67e-07	NaN/NaN/NaN/NaN	NaN/NaN/NaN/NaN	NaN/NaN/NaN/NaN
nonscomp/1000	55/141/0.010/8.58e-07	64/161/0.011/9.61e-07	56/146/0.009/2.38e-07	58/214/0.009/7.71e-07
nonscomp/5050	48/126/0.016/7.59e-07	63/147/0.017/9.87e-07	59/147/0.015/5.91e-07	73/247/0.023/6.89e-07
power1/3	31/80/0.003/5.62e-07	51/105/0.003/3.67e-07	35/85/0.003/9.49e-07	31/109/0.003/4.09e-07
raydan1/30	44/105/0.003/9.58e-07	68/139/0.005/5.92e-07	60/123/0.004/7.77e-07	57/123/0.004/8.56e-07
raydan1/60	76/165/0.005/7.15e-07	91/191/0.006/7.14e-07	68/151/0.006/7.90e-07	83/188/0.006/8.87e-07
raydan1/120	100/217/0.007/7.23e-07	152/322/0.011/8.31e-07	100/207/0.007/5.06e-07	128/303/0.012/9.78e-07
raydan2/5000	12/81/0.028/3.54e-07	12/81/0.035/9.71e-07	12/81/0.029/9.71e-07	14/85/0.036/3.17e-07
raydan2/20000	19/96/0.110/7.69e-08	19/96/0.106/7.69e-08	19/129/0.139/6.30e-07	20/122/0.132/2.87e-07
raydan2/200000	19/105/1.911/8.20e-08	75/496/8.391/1.92e-07	72/416/6.792/5.53e-07	20/114/1.857/9.25e-07
diagonal1/50	103/418/0.021/7.90e-07	131/584/0.024/4.15e-07	74/162/0.006/4.97e-07	104/396/0.014/9.28e-07
diagonal1/100	114/399/0.014/7.28e-07	178/742/0.040/9.47e-07	124/483/0.023/7.38e-07	148/709/0.044/8.48e-07
diagonal1/400	343/2160/0.150/9.83e-07	598/4346/0.363/9.65e-07	632/5477/0.473/8.98e-07	775/6495/0.418/9.02e-07
diagonal2/30	41/98/0.004/6.57e-07	58/139/0.005/8.85e-07	52/118/0.004/8.53e-07	60/133/0.004/3.56e-07
diagonal3/200	223/1069/0.049/9.31e-07	227/854/0.056/8.84e-07	177/736/0.048/8.69e-07	341/2542/0.158/7.86e-07
diagonal3/400	299/1251/0.106/9.55e-07	326/1978/0.116/9.02e-07	349/2140/0.121/8.31e-07	682/5377/0.338/5.25e-07
diagonal3/2000	1183/9279/1.888/9.40e-07	1312/9720/1.862/9.27e-07	NaN/NaN/NaN/NaN	NaN/NaN/NaN/NaN
bv/500	146/335/0.170/9.23e-07	172/384/0.203/8.44e-07	175/361/0.190/9.47e-07	276/810/0.582/8.55e-07
ie/80	13/53/0.140/6.03e-07	20/61/0.138/4.23e-07	14/54/0.112/6.77e-07	16/58/0.151/9.46e-08
singx/100	965/2316/0.163/9.16e-07	751/1767/0.143/6.41e-07	288/720/0.072/9.57e-07	201/772/0.078/7.59e-07
lin/30	17/79/0.010/7.03e-07	17/79/0.015/8.57e-07	17/79/0.020/7.36e-07	18/82/0.022/6.78e-07
lin/300	16/71/0.134/1.43e-09	15/70/0.087/1.58e-10	17/72/0.081/4.45e-09	19/74/0.090/6.90e-08
osb2/11	842/1868/0.043/7.48e-07	1488/3205/0.092/9.08e-07	709/1371/0.033/7.94e-07	934/2744/0.065/8.02e-07
pen1/200	326/1078/0.064/9.60e-08	294/2017/0.101/5.73e-08	85/452/0.024/2.33e-07	132/570/0.030/6.29e-07
pen1/2000	85/397/6.251/6.11e-07	101/488/8.557/2.64e-07	177/1075/23.921/4.66e-07	77/452/9.827/9.94e-07
pen2/30	760/2104/0.039/9.23e-07	480/1460/0.021/8.46e-07	694/2282/0.032/9.30e-07	665/3007/0.041/7.27e-07
pen2/70	944/2443/0.066/9.12e-07	699/1972/0.054/6.12e-07	613/2067/0.056/8.91e-07	1032/4960/0.134/9.53e-07
trid/1000	39/103/0.202/2.73e-07	58/123/0.264/7.43e-07	43/102/0.208/7.50e-07	78/293/0.583/6.63e-07