

Partial Solutions and MultiFit algorithm for multiprocessor scheduling

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This document presents detailed results, that are obtained by using the heuristic presented in Paletta and Ruiz-Torres [2014] on family of instances referred in literature as NON-UNIFORM. All instances are available at URL:

<http://www.uniriotec.br/adriana/documents.html>,

and are characterized by three different intervals for processing times $[1,100]$, $[1,1000]$ and $[1,10000]$.

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Simbol	Description
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B&B	makespan obtained by Alvim and Ribeiro using the branch and bound algorithm of Dell’Amico and Martello [3]. These results are available in [2].
HI	makespan obtained by Alvim and Ribeiro using their algorithm [1]. These results are available in [2].
CA	makespan obtained by using the algorithm presented in [4].
PSMF	makespan obtained by using the algorithm presented in [5].
PSMF+	makespan obtained by using the algorithm presented in [5].
sec	time in seconds needed to execute the algorithm
0.0	is used to indicate negligible computation times.
Number	instance number.
n	job number.
m	machine number.
LB	lower bound.

Results for NON-UNIFORM instances with $p_j \in [1, 100]$

ni	m	n	B&B		HI		CA		PSMF		PSMF+		LB
			MAK	s	MAK	s	MAK	s	MAK	s	MAK	s	
1	5	10	193.0	.00	193.0	.00	193.0	.00	193.0	.00	193.0	.00	193.0
2	5	10	189.0	.00	189.0	.00	189.0	.00	189.0	.00	189.0	.00	189.0
3	5	10	186.0	.00	186.0	.00	186.0	.00	186.0	.00	186.0	.00	186.0
4	5	10	188.0	.00	188.0	.00	188.0	.00	188.0	.00	188.0	.00	188.0
5	5	10	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0
6	5	10	189.0	.00	189.0	.00	189.0	.00	189.0	.00	189.0	.00	189.0
7	5	10	188.0	.00	188.0	.00	188.0	.00	188.0	.00	188.0	.00	188.0
8	5	10	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0
9	5	10	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0
10	5	10	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0
1	5	50	950.0	.12	945.0	.01	945.0	.00	951.0	.00	945.0	.00	945.0
2	5	50	945.0	.10	937.0	.01	937.0	.00	946.0	.00	937.0	.00	937.0
3	5	50	946.0	.13	938.0	.01	938.0	.00	947.0	.00	939.0	.00	938.0
4	5	50	942.0	.12	936.0	.02	936.0	.00	944.0	.00	936.0	.00	936.0
5	5	50	941.0	.12	933.0	.01	933.0	.00	943.0	.00	933.0	.00	933.0
6	5	50	948.0	.10	941.0	.04	941.0	.00	949.0	.00	941.0	.00	941.0
7	5	50	949.0	.10	943.0	.02	943.0	.00	950.0	.00	944.0	.00	943.0
8	5	50	948.0	.12	940.0	.08	940.0	.00	949.0	.00	940.0	.00	940.0
9	5	50	954.0	.10	950.0	.01	950.0	.00	956.0	.00	950.0	.00	950.0
10	5	50	944.0	.09	936.0	.04	936.0	.00	946.0	.00	937.0	.00	936.0
1	5	100	1874.0	.00	1874.0	.00	1874.0	.00	1903.0	.00	1874.0	.00	1874.0
2	5	100	1862.0	.00	1862.0	.00	1862.0	.00	1891.0	.00	1862.0	.00	1862.0
3	5	100	1864.0	.00	1864.0	.11	1864.0	.00	1892.0	.00	1864.0	.00	1864.0
4	5	100	1865.0	.00	1865.0	.00	1865.0	.01	1895.0	.00	1865.0	.00	1865.0
5	5	100	1874.0	.00	1874.0	.00	1874.0	.00	1901.0	.00	1874.0	.00	1874.0
6	5	100	1871.0	.00	1871.0	.00	1871.0	.00	1902.0	.00	1871.0	.00	1871.0
7	5	100	1862.0	.00	1862.0	.00	1862.0	.00	1881.0	.00	1862.0	.00	1862.0
8	5	100	1869.0	.00	1869.0	.00	1869.0	.00	1895.0	.00	1869.0	.00	1869.0
9	5	100	1868.0	.00	1868.0	.00	1868.0	.00	1898.0	.00	1868.0	.00	1868.0
10	5	100	1866.0	.00	1866.0	.00	1866.0	.00	1895.0	.00	1866.0	.00	1866.0
1	5	500	9407.0	.03	9407.0	.01	9407.0	.08	9412.0	.00	9407.0	.00	9407.0
2	5	500	9420.0	.00	9420.0	.00	9420.0	.06	9420.0	.00	9420.0	.00	9420.0
3	5	500	9399.0	.00	9399.0	.00	9399.0	.07	9399.0	.00	9399.0	.00	9399.0
4	5	500	9401.0	.00	9401.0	.01	9401.0	.07	9407.0	.00	9401.0	.00	9401.0
5	5	500	9381.0	.01	9381.0	.01	9381.0	.06	9381.0	.00	9381.0	.00	9381.0
6	5	500	9408.0	.00	9408.0	.00	9408.0	.06	9410.0	.00	9408.0	.00	9408.0
7	5	500	9381.0	.00	9381.0	.01	9381.0	.07	9389.0	.00	9381.0	.00	9381.0
8	5	500	9396.0	.04	9396.0	.00	9396.0	.06	9400.0	.00	9396.0	.00	9396.0
9	5	500	9372.0	.03	9372.0	.01	9372.0	.07	9379.0	.00	9372.0	.00	9372.0
10	5	500	9391.0	.00	9391.0	.00	9391.0	.07	9400.0	.00	9391.0	.00	9391.0
1	5	1000	18802.0	.00	18802.0	.03	18802.0	.29	18805.0	.00	18802.0	.00	18802.0
2	5	1000	18805.0	.00	18805.0	.03	18805.0	.29	18805.0	.00	18805.0	.00	18805.0
3	5	1000	18802.0	.00	18802.0	.03	18802.0	.29	18802.0	.00	18802.0	.00	18802.0
4	5	1000	18822.0	.00	18822.0	.02	18822.0	.26	18822.0	.00	18822.0	.00	18822.0
5	5	1000	18813.0	.00	18813.0	.02	18813.0	.28	18813.0	.00	18813.0	.00	18813.0
6	5	1000	18825.0	.00	18825.0	.02	18825.0	.50	18825.0	.00	18825.0	.00	18825.0
7	5	1000	18808.0	.00	18808.0	.01	18808.0	.26	18808.0	.00	18808.0	.00	18808.0
8	5	1000	18819.0	.00	18819.0	.03	18819.0	.49	18819.0	.00	18819.0	.00	18819.0
9	5	1000	18821.0	.00	18821.0	.02	18821.0	.45	18821.0	.00	18821.0	.00	18821.0
10	5	1000	18806.0	.00	18806.0	.02	18806.0	.28	18807.0	.00	18806.0	.00	18806.0
1	10	50	475.0	.24	474.0	.01	474.0	.00	475.0	.00	474.0	.00	474.0
2	10	50	472.0	.24	472.0	.63	472.0	.01	474.0	.00	472.0	.00	472.0
3	10	50	475.0	.23	475.0	.00	475.0	.00	476.0	.00	475.0	.00	475.0
4	10	50	475.0	.24	475.0	.63	475.0	.00	476.0	.00	475.0	.00	475.0
5	10	50	472.0	.19	471.0	.75	471.0	.00	473.0	.00	471.0	.00	471.0
6	10	50	472.0	.22	471.0	.00	471.0	.00	472.0	.00	471.0	.00	471.0
7	10	50	476.0	.22	476.0	.31	476.0	.00	477.0	.00	476.0	.00	476.0
8	10	50	473.0	.24	472.0	.34	472.0	.01	474.0	.00	473.0	.00	472.0
9	10	50	472.0	.21	471.0	.37	471.0	.00	473.0	.00	472.0	.00	471.0
10	10	50	473.0	.24	473.0	.01	473.0	.00	475.0	.00	473.0	.00	473.0
1	10	100	949.0	.20	941.0	.46	941.0	.00	949.0	.00	941.0	.00	941.0
2	10	100	949.0	.22	942.0	.09	942.0	.00	949.0	.00	942.0	.00	942.0
3	10	100	952.0	.21	944.0	.15	944.0	.00	951.0	.00	944.0	.00	944.0
4	10	100	945.0	.21	937.0	.16	937.0	.00	945.0	.00	937.0	.00	937.0
5	10	100	950.0	.17	942.0	.57	941.0	.00	949.0	.00	941.0	.00	941.0
6	10	100	950.0	.24	942.0	.08	942.0	.00	950.0	.00	942.0	.00	942.0
7	10	100	957.0	.24	950.0	.08	950.0	.01	957.0	.00	950.0	.00	950.0
8	10	100	951.0	.19	944.0	.11	944.0	.00	952.0	.00	945.0	.00	944.0
9	10	100	946.0	.24	940.0	.43	939.0	.01	947.0	.00	939.0	.00	939.0
10	10	100	950.0	.23	944.0	.09	944.0	.00	950.0	.00	944.0	.00	944.0

Continue Results for NON-UNIFORM instances with $p_j \in [1, 100]$

ni	m	n	B&B		HI		CA		PSMF		PSMF+		LB
			MAK	s	MAK	s	MAK	s	MAK	s	MAK	s	
1	10	500	4703.0	.02	4703.0	.00	4703.0	.06	4710.0	.00	4703.0	.00	4703.0
2	10	500	4699.0	.00	4699.0	.00	4699.0	.06	4722.0	.00	4699.0	.00	4699.0
3	10	500	4686.0	.03	4686.0	.00	4686.0	.07	4702.0	.00	4686.0	.00	4686.0
4	10	500	4701.0	.00	4701.0	.00	4701.0	.06	4719.0	.00	4701.0	.00	4701.0
5	10	500	4696.0	.00	4696.0	.00	4696.0	.07	4710.0	.00	4696.0	.00	4696.0
6	10	500	4706.0	.06	4706.0	.00	4706.0	.06	4714.0	.00	4706.0	.00	4706.0
7	10	500	4704.0	.00	4704.0	.00	4704.0	.06	4720.0	.00	4704.0	.00	4704.0
8	10	500	4706.0	.03	4706.0	.01	4706.0	.06	4724.0	.00	4706.0	.00	4706.0
9	10	500	4695.0	.00	4695.0	.00	4695.0	.08	4705.0	.00	4695.0	.00	4695.0
10	10	500	4706.0	.06	4706.0	.00	4706.0	.06	4717.0	.00	4706.0	.00	4706.0
1	10	1000	9410.0	.00	9410.0	.01	9410.0	.22	9411.0	.00	9410.0	.00	9410.0
2	10	1000	9422.0	.00	9422.0	.00	9422.0	.21	9422.0	.00	9422.0	.00	9422.0
3	10	1000	9403.0	.02	9403.0	.01	9403.0	.22	9403.0	.00	9403.0	.00	9403.0
4	10	1000	9397.0	.07	9397.0	.01	9397.0	.23	9397.0	.00	9397.0	.00	9397.0
5	10	1000	9409.0	.00	9409.0	.00	9409.0	.23	9411.0	.00	9409.0	.00	9409.0
6	10	1000	9405.0	.00	9405.0	.00	9405.0	.23	9406.0	.00	9405.0	.00	9405.0
7	10	1000	9389.0	.00	9389.0	.00	9389.0	.23	9389.0	.00	9389.0	.00	9389.0
8	10	1000	9409.0	.00	9409.0	.00	9409.0	.23	9409.0	.00	9409.0	.00	9409.0
9	10	1000	9398.0	.00	9398.0	.01	9398.0	.24	9398.0	.00	9398.0	.00	9398.0
10	10	1000	9407.0	.00	9407.0	.00	9407.0	.22	9407.0	.00	9407.0	.00	9407.0
1	25	50	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0
2	25	50	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0
3	25	50	192.0	.00	192.0	.00	192.0	.00	192.0	.00	192.0	.00	192.0
4	25	50	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0
5	25	50	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0
6	25	50	194.0	.00	194.0	.00	194.0	.00	194.0	.00	194.0	.00	194.0
7	25	50	190.0	.01	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0
8	25	50	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0	.00	190.0
9	25	50	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0	.00	191.0
10	25	50	194.0	.00	194.0	.00	194.0	.00	194.0	.00	194.0	.00	194.0
1	25	100	380.0	1.54	379.0	.01	379.0	.00	380.0	.00	380.0	.00	379.0
2	25	100	380.0	1.22	379.0	.02	379.0	.00	380.0	.00	379.0	.00	379.0
3	25	100	377.0	1.24	377.0	.01	377.0	.00	378.0	.00	377.0	.00	377.0
4	25	100	381.0	.95	380.0	.01	380.0	.00	380.0	.00	380.0	.00	380.0
5	25	100	378.0	1.09	378.0	.80	378.0	.01	379.0	.00	378.0	.00	378.0
6	25	100	375.0	1.22	375.0	3.76	375.0	.01	376.0	.00	375.0	.00	375.0
7	25	100	381.0	.35	380.0	.00	380.0	.00	381.0	.00	380.0	.00	380.0
8	25	100	380.0	1.50	380.0	.00	380.0	.00	381.0	.00	380.0	.00	380.0
9	25	100	381.0	1.03	380.0	.85	380.0	.00	381.0	.00	380.0	.00	380.0
10	25	100	377.0	1.05	377.0	.01	377.0	.00	378.0	.00	377.0	.00	377.0
1	25	500	1880.0	4.57	1878.0	.06	1878.0	.05	1896.0	.00	1878.0	.00	1878.0
2	25	500	1878.0	.69	1878.0	.05	1878.0	.05	1896.0	.00	1878.0	.00	1878.0
3	25	500	1876.0	3.22	1876.0	.39	1876.0	.05	1893.0	.00	1876.0	.00	1876.0
4	25	500	1879.0	.43	1879.0	.01	1879.0	.05	1896.0	.00	1879.0	.00	1879.0
5	25	500	1882.0	.01	1882.0	.02	1882.0	.05	1898.0	.00	1882.0	.00	1882.0
6	25	500	1881.0	.19	1881.0	.06	1881.0	.06	1898.0	.00	1881.0	.00	1881.0
7	25	500	1882.0	5.50	1881.0	.04	1881.0	.04	1899.0	.00	1881.0	.00	1881.0
8	25	500	1884.0	.60	1884.0	.05	1884.0	.05	1902.0	.00	1884.0	.00	1884.0
9	25	500	1884.0	.59	1884.0	.05	1884.0	.04	1901.0	.00	1884.0	.00	1884.0
10	25	500	1879.0	.55	1879.0	.10	1879.0	.05	1897.0	.00	1879.0	.00	1879.0
1	25	1000	3768.0	4.08	3766.0	.16	3766.0	.26	3789.0	.00	3766.0	.01	3766.0
2	25	1000	3763.0	4.09	3759.0	.16	3759.0	.15	3787.0	.00	3759.0	.01	3759.0
3	25	1000	3764.0	3.65	3763.0	.16	3763.0	.23	3788.0	.00	3763.0	.01	3763.0
4	25	1000	3767.0	35.41	3767.0	.17	3767.0	.23	3795.0	.00	3767.0	.01	3767.0
5	25	1000	3780.0	4.09	3760.0	.17	3760.0	.14	3784.0	.00	3760.0	.01	3760.0
6	25	1000	3769.0	28.34	3767.0	.17	3767.0	.23	3793.0	.00	3767.0	.01	3767.0
7	25	1000	3780.0	10.81	3765.0	.18	3765.0	.25	3796.0	.00	3765.0	.01	3765.0
8	25	1000	3760.0	2.41	3760.0	.19	3760.0	.15	3784.0	.00	3760.0	.01	3760.0
9	25	1000	3761.0	.67	3761.0	.18	3761.0	.15	3788.0	.00	3761.0	.01	3761.0
10	25	1000	3763.0	2.09	3763.0	.22	3763.0	.22	3785.0	.00	3763.0	.01	3763.0

Results for NON-UNIFORM instances with $p_j \in [1, 1000]$

ni	m	n	B&B	s	HI	s	CA	s	PSMF	s	PSMF+	s	
1	5	10	1918.0	.00	1918.0	.00	1918.0	.00	1918.0	.00	1918.0	.00	1918.0
2	5	10	1891.0	.00	1891.0	.00	1891.0	.00	1891.0	.00	1891.0	.00	1891.0
3	5	10	1864.0	.00	1864.0	.00	1864.0	.00	1864.0	.00	1864.0	.00	1864.0
4	5	10	1879.0	.00	1879.0	.00	1879.0	.00	1879.0	.00	1879.0	.00	1879.0
5	5	10	1904.0	.00	1904.0	.00	1904.0	.00	1904.0	.00	1904.0	.00	1904.0
6	5	10	1885.0	.00	1885.0	.00	1885.0	.00	1885.0	.00	1885.0	.00	1885.0
7	5	10	1885.0	.00	1885.0	.00	1885.0	.00	1885.0	.00	1885.0	.00	1885.0
8	5	10	1902.0	.00	1902.0	.00	1902.0	.00	1902.0	.00	1902.0	.00	1902.0
9	5	10	1896.0	.00	1896.0	.00	1896.0	.00	1896.0	.00	1896.0	.00	1896.0
10	5	10	1902.0	.00	1902.0	.00	1902.0	.00	1902.0	.00	1902.0	.00	1902.0
1	5	50	9499.0	.20	9440.0	.07	9440.0	.00	9502.0	.00	9441.0	.00	9440.0
2	5	50	9449.0	.21	9368.0	.02	9368.0	.00	9446.0	.00	9369.0	.00	9368.0
3	5	50	9470.0	.19	9395.0	.05	9395.0	.00	9472.0	.00	9396.0	.00	9395.0
4	5	50	9444.0	.20	9372.0	.04	9372.0	.00	9443.0	.00	9374.0	.00	9372.0
5	5	50	9434.0	.19	9346.0	.04	9346.0	.00	9430.0	.00	9348.0	.00	9346.0
6	5	50	9495.0	.20	9414.0	.00	9414.0	.00	9492.0	.00	9419.0	.00	9414.0
7	5	50	9498.0	.19	9428.0	.01	9428.0	.00	9495.0	.00	9428.0	.00	9428.0
8	5	50	9487.0	.21	9402.0	.04	9402.0	.00	9483.0	.00	9402.0	.00	9402.0
9	5	50	9551.0	.23	9495.0	.03	9495.0	.00	9551.0	.00	9498.0	.00	9495.0
10	5	50	9456.0	.18	9377.0	.01	9377.0	.00	9459.0	.00	9379.0	.00	9377.0
1	5	100	18718.0	.00	18718.0	.00	18718.0	.00	18958.0	.00	18718.0	.00	18718.0
2	5	100	18617.0	.00	18617.0	.00	18617.0	.00	18870.0	.00	18617.0	.00	18617.0
3	5	100	18642.0	.00	18642.0	.00	18642.0	.00	18936.0	.00	18642.0	.00	18642.0
4	5	100	18655.0	.00	18655.0	.00	18655.0	.01	18898.0	.00	18655.0	.00	18655.0
5	5	100	18728.0	.00	18728.0	.01	18728.0	.01	18909.0	.00	18728.0	.00	18728.0
6	5	100	18730.0	.19	18701.0	.14	18701.0	.00	18955.0	.00	18705.0	.00	18701.0
7	5	100	18626.0	.00	18626.0	.00	18626.0	.00	18775.0	.00	18626.0	.00	18626.0
8	5	100	18691.0	.00	18691.0	.00	18691.0	.00	18894.0	.00	18691.0	.00	18691.0
9	5	100	18668.0	.00	18668.0	.00	18668.0	.00	18993.0	.00	18669.0	.00	18668.0
10	5	100	18657.0	.00	18657.0	.00	18657.0	.00	18934.0	.00	18657.0	.00	18657.0
1	5	500	94045.0	.03	94045.0	.01	94045.0	.12	94103.0	.00	94045.0	.00	94045.0
2	5	500	94179.0	.00	94179.0	.00	94179.0	.20	94179.0	.00	94179.0	.00	94179.0
3	5	500	93986.0	.00	93986.0	.00	93986.0	.13	93993.0	.00	93986.0	.00	93986.0
4	5	500	94004.0	.00	94004.0	.01	94004.0	.16	94075.0	.00	94004.0	.00	94004.0
5	5	500	93821.0	.00	93821.0	.00	93821.0	.13	93861.0	.00	93821.0	.00	93821.0
6	5	500	94065.0	.01	94065.0	.00	94065.0	.13	94093.0	.00	94065.0	.00	94065.0
7	5	500	93823.0	.00	93823.0	.00	93823.0	.14	93857.0	.00	93823.0	.00	93823.0
8	5	500	93938.0	.00	93938.0	.00	93938.0	.10	93958.0	.00	93938.0	.00	93938.0
9	5	500	93762.0	.00	93762.0	.00	93762.0	.20	93832.0	.00	93762.0	.00	93762.0
10	5	500	93885.0	.00	93885.0	.00	93885.0	.17	93967.0	.00	93885.0	.00	93885.0
1	5	1000	188043.0	.01	188043.0	.00	188043.0	.85	188048.0	.01	188043.0	.01	188043.0
2	5	1000	188039.0	.00	188039.0	.02	188039.0	1.13	188039.0	.00	188039.0	.00	188039.0
3	5	1000	188014.0	.00	188014.0	.03	188014.0	1.42	188016.0	.01	188014.0	.01	188014.0
4	5	1000	188212.0	.00	188212.0	.02	188212.0	.56	188212.0	.00	188212.0	.00	188212.0
5	5	1000	188107.0	.00	188107.0	.03	188107.0	1.30	188107.0	.00	188107.0	.00	188107.0
6	5	1000	188207.0	.00	188207.0	.03	188207.0	.87	188207.0	.00	188207.0	.00	188207.0
7	5	1000	188081.0	.00	188081.0	.01	188081.0	.75	188081.0	.00	188081.0	.00	188081.0
8	5	1000	188168.0	.01	188168.0	.02	188168.0	.82	188168.0	.00	188168.0	.00	188168.0
9	5	1000	188170.0	.00	188170.0	.03	188170.0	.75	188170.0	.00	188170.0	.00	188170.0
10	5	1000	188062.0	.00	188062.0	.02	188062.0	.90	188063.0	.01	188062.0	.01	188062.0
1	10	50	4743.0	.45	4741.0	.00	4741.0	.00	4751.0	.00	4741.0	.00	4741.0
2	10	50	4732.0	.45	4723.0	.00	4723.0	.00	4736.0	.00	4724.0	.00	4723.0
3	10	50	4747.0	.44	4744.0	.00	4744.0	.00	4758.0	.00	4745.0	.00	4744.0
4	10	50	4745.0	.44	4743.0	.00	4743.0	.00	4758.0	.00	4744.0	.00	4743.0
5	10	50	4725.0	.33	4708.0	.01	4708.0	.00	4726.0	.00	4708.0	.00	4708.0
6	10	50	4720.0	.38	4706.0	.00	4706.0	.00	4721.0	.00	4707.0	.00	4706.0
7	10	50	4758.0	.41	4755.0	.02	4755.0	.00	4766.0	.00	4756.0	.00	4755.0
8	10	50	4726.0	.42	4719.0	.00	4719.0	.00	4734.0	.00	4719.0	.00	4719.0
9	10	50	4727.0	.44	4713.0	.01	4713.0	.00	4728.0	.00	4715.0	.00	4713.0
10	10	50	4737.0	.43	4734.0	.00	4734.0	.00	4749.0	.00	4734.0	.00	4734.0
1	10	100	9490.0	.33	9405.0	1.76	9405.0	.01	9482.0	.00	9407.0	.00	9405.0
2	10	100	9495.0	.45	9424.0	.10	9424.0	.00	9489.0	.00	9425.0	.00	9424.0
3	10	100	9516.0	.38	9437.0	.24	9437.0	.01	9509.0	.00	9439.0	.00	9437.0
4	10	100	9457.0	.42	9378.0	.20	9378.0	.00	9453.0	.00	9379.0	.00	9378.0
5	10	100	9496.0	.35	9410.0	.61	9410.0	.02	9489.0	.00	9413.0	.00	9410.0
6	10	100	9498.0	.40	9417.0	.11	9417.0	.01	9489.0	.00	9418.0	.00	9417.0
7	10	100	9562.0	.39	9495.0	.11	9495.0	.26	9556.0	.00	9497.0	.00	9495.0
8	10	100	9519.0	.39	9446.0	.16	9446.0	.01	9515.0	.00	9447.0	.00	9446.0
9	10	100	9470.0	.41	9393.0	.10	9393.0	.08	9464.0	.00	9395.0	.00	9393.0
10	10	100	9508.0	.34	9435.0	.10	9435.0	.03	9498.0	.00	9436.0	.00	9435.0

Continue Results for NON-UNIFORM instances with $p_j \in [1, 1000]$

ni	m	n	B&B		HI		CA		PSMF		PSMF+		LB
			MAK	s	MAK	s	MAK	s	MAK	s	MAK	s	
1	10	500	47013.0	.00	47013.0	.07	47013.0	.19	47172.0	.00	47013.0	.01	47013.0
2	10	500	46980.0	.00	46980.0	.53	46980.0	.20	47209.0	.00	46980.0	.01	46980.0
3	10	500	46864.0	.00	46864.0	.00	46864.0	.16	47088.0	.00	46864.0	.01	46864.0
4	10	500	46999.0	.01	46999.0	.00	46999.0	.23	47219.0	.00	46999.0	.01	46999.0
5	10	500	46954.0	.02	46954.0	.01	46954.0	.23	47170.0	.00	46954.0	.01	46954.0
6	10	500	47062.0	.00	47062.0	.00	47062.0	.16	47264.0	.00	47062.0	.01	47062.0
7	10	500	47023.0	.04	47023.0	.00	47023.0	.19	47172.0	.00	47023.0	.01	47023.0
8	10	500	47056.0	.02	47056.0	.05	47056.0	.20	47280.0	.00	47056.0	.01	47056.0
9	10	500	46944.0	.00	46944.0	.00	46944.0	.18	47144.0	.00	46944.0	.01	46944.0
10	10	500	47061.0	.00	47061.0	.06	47061.0	.21	47182.0	.00	47061.0	.01	47061.0
1	10	1000	94088.0	.01	94088.0	.01	94088.0	.98	94097.0	.00	94088.0	.00	94088.0
2	10	1000	94191.0	.00	94191.0	.01	94191.0	.94	94191.0	.00	94191.0	.00	94191.0
3	10	1000	94013.0	.64	94013.0	.01	94013.0	.84	94013.0	.00	94013.0	.00	94013.0
4	10	1000	93958.0	.00	93958.0	.00	93958.0	.45	93958.0	.00	93958.0	.00	93958.0
5	10	1000	94092.0	.34	94092.0	.01	94092.0	.49	94103.0	.00	94092.0	.00	94092.0
6	10	1000	94041.0	.00	94041.0	.58	94041.0	.47	94064.0	.00	94041.0	.00	94041.0
7	10	1000	93927.0	.00	93927.0	.01	93927.0	.68	93927.0	.00	93927.0	.00	93927.0
8	10	1000	94082.0	.03	94082.0	.00	94082.0	.33	94082.0	.00	94082.0	.00	94082.0
9	10	1000	93993.0	.01	93993.0	.01	93993.0	.51	93993.0	.00	93993.0	.00	93993.0
10	10	1000	94062.0	.05	94062.0	.00	94062.0	.39	94062.0	.00	94062.0	.00	94062.0
1	25	50	1913.0	.00	1913.0	.00	1913.0	.00	1913.0	.00	1913.0	.00	1913.0
2	25	50	1909.0	.00	1909.0	.00	1909.0	.00	1909.0	.00	1909.0	.00	1909.0
3	25	50	1912.0	.00	1912.0	.00	1912.0	.00	1912.0	.00	1912.0	.00	1912.0
4	25	50	1899.0	.00	1899.0	.00	1899.0	.00	1899.0	.00	1899.0	.00	1899.0
5	25	50	1908.0	.00	1908.0	.00	1908.0	.00	1908.0	.00	1908.0	.00	1908.0
6	25	50	1931.0	.00	1931.0	.00	1931.0	.00	1931.0	.00	1931.0	.00	1931.0
7	25	50	1895.0	.00	1895.0	.00	1895.0	.05	1895.0	.00	1895.0	.00	1895.0
8	25	50	1896.0	.00	1896.0	.00	1896.0	.00	1896.0	.00	1896.0	.00	1896.0
9	25	50	1908.0	.00	1908.0	.00	1908.0	.00	1908.0	.00	1908.0	.00	1908.0
10	25	50	1932.0	.00	1932.0	.00	1932.0	.00	1932.0	.00	1932.0	.00	1932.0
1	25	100	3797.0	.76	3788.0	.01	3788.0	.00	3798.0	.00	3790.0	.00	3788.0
2	25	100	3799.0	.78	3789.0	.04	3789.0	.01	3797.0	.00	3789.0	.00	3789.0
3	25	100	3776.0	.99	3767.0	.01	3767.0	.00	3776.0	.00	3768.0	.00	3767.0
4	25	100	3801.0	1.33	3793.0	.08	3793.0	.00	3800.0	.00	3794.0	.00	3793.0
5	25	100	3785.0	.63	3775.0	.78	3775.0	.01	3784.0	.00	3776.0	.00	3775.0
6	25	100	3754.0	2.36	3751.0	9.49	3751.0	.01	3762.0	.00	3752.0	.00	3751.0
7	25	100	3809.0	.52	3795.0	.02	3795.0	.01	3802.0	.00	3795.0	.00	3795.0
8	25	100	3803.0	1.35	3795.0	.01	3795.0	.00	3805.0	.00	3797.0	.00	3795.0
9	25	100	3810.0	.73	3801.0	.34	3801.0	.00	3808.0	.00	3802.0	.00	3801.0
10	25	100	3782.0	1.17	3769.0	.01	3769.0	.24	3780.0	.00	3770.0	.00	3769.0
1	25	500	18780.0	7.21	18776.0	.01	18776.0	.28	18954.0	.00	18776.0	.00	18776.0
2	25	500	18791.0	3.50	18770.0	.06	18770.0	.35	18956.0	.00	18770.0	.00	18770.0
3	25	500	18763.0	2.78	18756.0	.07	18756.0	.28	18934.0	.00	18756.0	.00	18756.0
4	25	500	18798.0	8.56	18783.0	.05	18783.0	.33	18957.0	.00	18783.0	.00	18783.0
5	25	500	18963.0	5.92	18811.0	.07	18811.0	.26	18977.0	.00	18811.0	.00	18811.0
6	25	500	18814.0	4.02	18806.0	.89	18806.0	.31	18974.0	.00	18806.0	.00	18806.0
7	25	500	18805.0	.29	18805.0	.07	18805.0	.26	18986.0	.00	18805.0	.00	18805.0
8	25	500	18831.0	9.99	18825.0	.01	18825.0	.31	19008.0	.00	18825.0	.00	18825.0
9	25	500	18875.0	8.26	18830.0	.05	18830.0	.34	19010.0	.00	18831.0	.00	18830.0
10	25	500	18787.0	4.80	18784.0	.02	18784.0	.31	18964.0	.00	18784.0	.00	18784.0
1	25	1000	37656.0	.54	37656.0	.01	37656.0	.99	37941.0	.00	37656.0	.00	37656.0
2	25	1000	37586.0	2.37	37586.0	.01	37586.0	1.07	37842.0	.00	37586.0	.01	37586.0
3	25	1000	37632.0	.09	37632.0	1.98	37632.0	.91	37899.0	.00	37632.0	.00	37632.0
4	25	1000	37661.0	.01	37661.0	.30	37661.0	.94	37916.0	.00	37661.0	.01	37661.0
5	25	1000	37596.0	.05	37596.0	1.58	37596.0	.97	37876.0	.00	37596.0	.00	37596.0
6	25	1000	37659.0	.01	37659.0	.01	37659.0	.90	37956.0	.00	37659.0	.00	37659.0
7	25	1000	37646.0	.03	37646.0	.20	37646.0	1.00	37894.0	.00	37646.0	.01	37646.0
8	25	1000	37599.0	.39	37599.0	.15	37599.0	1.42	37924.0	.00	37599.0	.01	37599.0
9	25	1000	37604.0	.08	37604.0	.02	37604.0	.96	37865.0	.00	37604.0	.01	37604.0
10	25	1000	37626.0	3.74	37623.0	.01	37623.0	1.35	37897.0	.00	37623.0	.01	37623.0

Results for NON-UNIFORM instances with $p_j \in [1, 10000]$

			B&B		HI		CA		PSMF		PSMF+		LB
ni	m	n	MAK	s	MAK	s	MAK	s	MAK	s	MAK	s	
1	5	10	19186.0	.00	19186.0	.00	19186.0	.00	19186.0	.00	19186.0	.00	19186.0
2	5	10	18907.0	.00	18907.0	.00	18907.0	.00	18907.0	.00	18907.0	.00	18907.0
3	5	10	18644.0	.00	18644.0	.00	18644.0	.00	18644.0	.00	18644.0	.00	18644.0
4	5	10	18793.0	.00	18793.0	.00	18793.0	.00	18793.0	.00	18793.0	.00	18793.0
5	5	10	19038.0	.00	19038.0	.00	19038.0	.00	19038.0	.00	19038.0	.00	19038.0
6	5	10	18856.0	.00	18856.0	.00	18856.0	.00	18856.0	.00	18856.0	.00	18856.0
7	5	10	18856.0	.00	18856.0	.00	18856.0	.00	18856.0	.00	18856.0	.00	18856.0
8	5	10	19018.0	.00	19018.0	.00	19018.0	.00	19018.0	.00	19018.0	.00	19018.0
9	5	10	18968.0	.00	18968.0	.00	18968.0	.00	18968.0	.00	18968.0	.00	18968.0
10	5	10	19014.0	.00	19014.0	.00	19014.0	.00	19014.0	.00	19014.0	.00	19014.0
1	5	50	95049.0	.28	94401.0	.02	94401.0	.00	95013.0	.00	94436.0	.00	94401.0
2	5	50	94519.0	.27	93694.0	.03	93694.0	.00	94482.0	.00	93715.0	.00	93694.0
3	5	50	94731.0	.29	93953.0	.01	93953.0	.00	94721.0	.00	93957.0	.00	93953.0
4	5	50	94463.0	.27	93733.0	.04	93733.0	.01	94439.0	.00	93751.0	.00	93733.0
5	5	50	94343.0	.28	93463.0	.01	93463.0	.00	94297.0	.00	93481.0	.00	93463.0
6	5	50	94961.0	.27	94145.0	.01	94145.0	.00	94921.0	.00	94203.0	.00	94145.0
7	5	50	94975.0	.27	94275.0	.01	94275.0	.00	94940.0	.00	94275.0	.00	94275.0
8	5	50	94878.0	.28	94021.0	.05	94021.0	.00	94830.0	.00	94030.0	.00	94021.0
9	5	50	95519.0	.29	94949.0	.02	94949.0	.00	95507.0	.00	94964.0	.00	94949.0
10	5	50	94603.0	.25	93780.0	.01	93780.0	.00	94592.0	.00	93787.0	.00	93780.0
1	5	100	187165.0	.01	187165.0	.00	187165.0	.03	189639.0	.00	187167.0	.00	187165.0
2	5	100	186178.0	.00	186178.0	.00	186178.0	.00	188746.0	.00	186180.0	.00	186178.0
3	5	100	186407.0	.01	186407.0	.00	186407.0	.00	188601.0	.00	186407.0	.00	186407.0
4	5	100	186542.0	.00	186542.0	.00	186542.0	.06	189174.0	.00	186543.0	.00	186542.0
5	5	100	187274.0	.00	187274.0	.00	187274.0	.01	189359.0	.00	187274.0	.00	187274.0
6	5	100	187186.0	.32	187000.0	.02	187000.0	.19	189827.0	.00	187007.0	.00	187000.0
7	5	100	186261.0	.00	186261.0	.00	186261.0	.00	187974.0	.00	186261.0	.00	186261.0
8	5	100	186916.0	.00	186916.0	.00	186916.0	.01	188465.0	.00	186916.0	.00	186916.0
9	5	100	186669.0	.11	186668.0	.04	186668.0	.09	189700.0	.00	186670.0	.00	186668.0
10	5	100	186558.0	.01	186558.0	.07	186558.0	.14	189326.0	.00	186560.0	.00	186558.0
1	5	500	940444.0	.00	940444.0	.00	940444.0	.17	940826.0	.00	940444.0	.00	940444.0
2	5	500	941763.0	.00	941763.0	.01	941763.0	.39	941763.0	.00	941763.0	.00	941763.0
3	5	500	939852.0	.01	939852.0	.01	939852.0	.21	939932.0	.00	939852.0	.00	939852.0
4	5	500	940029.0	.00	940029.0	.00	940029.0	.22	940362.0	.00	940030.0	.00	940029.0
5	5	500	938231.0	.00	938231.0	.01	938231.0	.27	938633.0	.00	938231.0	.00	938231.0
6	5	500	940641.0	.00	940641.0	.00	940641.0	.15	940931.0	.00	940641.0	.00	940641.0
7	5	500	938208.0	.00	938208.0	.00	938208.0	.14	938991.0	.00	938208.0	.00	938208.0
8	5	500	939386.0	.00	939386.0	.01	939386.0	.15	939836.0	.00	939386.0	.00	939386.0
9	5	500	937624.0	.00	937624.0	.00	937624.0	.19	938268.0	.00	937624.0	.00	937624.0
10	5	500	938833.0	.00	938833.0	.00	938833.0	.20	939783.0	.00	938833.0	.00	938833.0
1	5	1000	1880396.0	.00	1880396.0	.04	1880396.0	.92	1880404.0	.00	1880396.0	.00	1880396.0
2	5	1000	1880346.0	.01	1880346.0	.03	1880346.0	1.47	1880429.0	.00	1880346.0	.00	1880346.0
3	5	1000	1880141.0	.00	1880141.0	.01	1880141.0	1.17	1880152.0	.00	1880141.0	.00	1880141.0
4	5	1000	1882118.0	.00	1882118.0	.03	1882118.0	.60	1882123.0	.00	1882118.0	.00	1882118.0
5	5	1000	1881051.0	.00	1881051.0	.03	1881051.0	1.63	1881051.0	.00	1881051.0	.00	1881051.0
6	5	1000	1882025.0	.00	1882025.0	.03	1882025.0	1.32	1882025.0	.00	1882025.0	.00	1882025.0
7	5	1000	1880835.0	.00	1880835.0	.03	1880835.0	.48	1880835.0	.00	1880835.0	.00	1880835.0
8	5	1000	1881687.0	.01	1881687.0	.02	1881687.0	3.46	1881687.0	.00	1881687.0	.00	1881687.0
9	5	1000	1881698.0	.00	1881698.0	.03	1881698.0	2.67	1881698.0	.00	1881698.0	.00	1881698.0
10	5	1000	1880627.0	.00	1880627.0	.02	1880627.0	1.02	1880630.0	.00	1880627.0	.00	1880627.0
1	10	50	47435.0	.59	47401.0	.08	47401.0	.00	47511.0	.00	47419.0	.00	47401.0
2	10	50	47322.0	.59	47225.0	.24	47225.0	.00	47367.0	.00	47228.0	.00	47225.0
3	10	50	47485.0	.58	47440.0	.19	47440.0	.00	47580.0	.00	47462.0	.00	47440.0
4	10	50	47449.0	.63	47421.0	.28	47421.0	.00	47575.0	.00	47431.0	.00	47421.0
5	10	50	47258.0	.46	47077.0	.10	47077.0	.00	47256.0	.00	47084.0	.00	47077.0
6	10	50	47221.0	.47	47058.0	.01	47058.0	.00	47212.0	.00	47070.0	.00	47058.0
7	10	50	47573.0	.59	47545.0	1.24	47544.0	.00	47662.0	.00	47553.0	.00	47544.0
8	10	50	47260.0	.58	47184.0	.72	47184.0	.00	47342.0	.00	47189.0	.00	47184.0
9	10	50	47272.0	.44	47129.0	.32	47129.0	.00	47285.0	.00	47145.0	.00	47129.0
10	10	50	47493.0	.45	47337.0	.28	47336.0	.01	47490.0	.00	47346.0	.00	47336.0
1	10	100	94911.0	.46	94047.0	.58	94047.0	.01	94825.0	.00	94063.0	.00	94047.0
2	10	100	94956.0	.55	94241.0	.13	94241.0	.07	94890.0	.00	94244.0	.00	94241.0
3	10	100	95166.0	.52	94372.0	.26	94372.0	.06	95084.0	.00	94384.0	.00	94372.0
4	10	100	94594.0	.51	93784.0	.42	93784.0	.02	94534.0	.00	93794.0	.00	93784.0
5	10	100	94986.0	.51	94108.0	.32	94108.0	.01	94893.0	.00	94113.0	.00	94108.0
6	10	100	94980.0	.59	94171.0	.02	94171.0	.03	94892.0	.00	94177.0	.00	94171.0
7	10	100	95648.0	.51	94948.0	.12	94948.0	.01	95559.0	.00	94952.0	.00	94948.0
8	10	100	95197.0	.53	94458.0	.29	94458.0	.02	95139.0	.00	94478.0	.00	94458.0
9	10	100	94706.0	.51	93938.0	.10	93938.0	.01	94645.0	.00	93957.0	.00	93938.0
10	10	100	95084.0	.53	94358.0	.12	94358.0	.03	94980.0	.00	94361.0	.00	94358.0

Results for NON-UNIFORM instances with $p_j \in [1, 10000]$

			B&B		HI		CA		PSMF		PSMF+		LB
ni	m	n	MAK	s	MAK	s	MAK	s	MAK	s	MAK	s	
1	10	500	470118.0	.07	470118.0	.00	470118.0	.20	472120.0	.00	470118.0	.00	470118.0
2	10	500	469781.0	.00	469781.0	.01	469781.0	.19	472089.0	.00	469781.0	.00	469781.0
3	10	500	468637.0	.00	468637.0	.01	468637.0	.21	470767.0	.00	468637.0	.00	468637.0
4	10	500	469994.0	.00	469994.0	.01	469994.0	.28	472160.0	.00	469994.0	.00	469994.0
5	10	500	469538.0	.01	469538.0	.01	469538.0	.28	471704.0	.00	469538.0	.01	469538.0
6	10	500	470609.0	.01	470609.0	.01	470609.0	.24	472878.0	.00	470609.0	.00	470609.0
7	10	500	470226.0	.01	470226.0	.01	470226.0	.21	472550.0	.00	470226.0	.01	470226.0
8	10	500	470547.0	.01	470547.0	.01	470547.0	.23	473123.0	.00	470547.0	.00	470547.0
9	10	500	469430.0	.07	469430.0	.00	469430.0	.26	471596.0	.00	469431.0	.00	469430.0
10	10	500	470593.0	.01	470593.0	.01	470593.0	.21	472555.0	.00	470593.0	.00	470593.0
1	10	1000	940882.0	.09	940882.0	.01	940882.0	1.06	941094.0	.00	940882.0	.00	940882.0
2	10	1000	941900.0	.00	941900.0	.01	941900.0	1.34	941906.0	.00	941900.0	.00	941900.0
3	10	1000	940140.0	.00	940140.0	.03	940140.0	.70	940140.0	.00	940140.0	.00	940140.0
4	10	1000	939563.0	.01	939563.0	.01	939563.0	.72	939563.0	.00	939563.0	.00	939563.0
5	10	1000	940925.0	.00	940925.0	.02	940925.0	.87	941082.0	.00	940925.0	.00	940925.0
6	10	1000	940408.0	.03	940408.0	.02	940408.0	.90	940496.0	.00	940408.0	.00	940408.0
7	10	1000	939261.0	.00	939261.0	.02	939261.0	.60	939261.0	.00	939261.0	.00	939261.0
8	10	1000	940807.0	.00	940807.0	.02	940807.0	.51	940807.0	.00	940807.0	.00	940807.0
9	10	1000	939922.0	.00	939922.0	.01	939922.0	.74	939922.0	.00	939922.0	.00	939922.0
10	10	1000	940601.0	.00	940601.0	.01	940601.0	.73	940601.0	.00	940601.0	.00	940601.0
1	25	50	19135.0	.00	19135.0	.00	19135.0	.00	19135.0	.00	19135.0	.00	19135.0
2	25	50	19091.0	.00	19091.0	.00	19091.0	.00	19091.0	.00	19091.0	.00	19091.0
3	25	50	19128.0	.00	19128.0	.00	19128.0	.00	19128.0	.00	19128.0	.00	19128.0
4	25	50	18990.0	.00	18990.0	.00	18990.0	.00	18990.0	.00	18990.0	.00	18990.0
5	25	50	19082.0	.00	19082.0	.00	19082.0	.00	19082.0	.00	19082.0	.00	19082.0
6	25	50	19308.0	.00	19308.0	.00	19308.0	.00	19308.0	.00	19308.0	.00	19308.0
7	25	50	18945.0	.01	18945.0	.00	18945.0	.02	18945.0	.00	18945.0	.00	18945.0
8	25	50	18960.0	.00	18960.0	.00	18960.0	.00	18960.0	.00	18960.0	.00	18960.0
9	25	50	19083.0	.00	19083.0	.00	19083.0	.00	19083.0	.00	19083.0	.00	19083.0
10	25	50	19311.0	.00	19311.0	.00	19311.0	.00	19311.0	.00	19311.0	.00	19311.0
1	25	100	37971.0	1.04	37882.0	1.72	37881.0	.01	37986.0	.00	37903.0	.00	37881.0
2	25	100	37995.0	1.05	37882.0	5.51	37881.0	.09	37969.0	.00	37890.0	.00	37881.0
3	25	100	37774.0	.87	37669.0	1.82	37668.0	.07	37767.0	.00	37679.0	.00	37668.0
4	25	100	38022.0	1.57	37930.0	4.13	37929.0	.03	38000.0	.00	37942.0	.00	37929.0
5	25	100	37866.0	.91	37754.0	4.55	37754.0	.06	37852.0	.00	37758.0	.00	37754.0
6	25	100	37541.0	2.84	37511.0	19.62	37511.0	.02	37629.0	.00	37523.0	.00	37511.0
7	25	100	38115.0	.84	37943.0	.20	37943.0	.01	38019.0	.00	37954.0	.00	37943.0
8	25	100	38046.0	1.37	37943.0	2.06	37942.0	.05	38048.0	.00	37968.0	.00	37942.0
9	25	100	38118.0	.83	38011.0	3.21	38011.0	.01	38096.0	.00	38017.0	.00	38011.0
10	25	100	37829.0	2.08	37691.0	.12	37691.0	.01	37799.0	.00	37706.0	.00	37691.0
1	25	500	187938.0	16.71	187752.0	9.09	187752.0	3.25	189544.0	.00	187752.0	.00	187752.0
2	25	500	187798.0	9.25	187693.0	.07	187693.0	1.96	189557.0	.00	187693.0	.00	187693.0
3	25	500	187704.0	16.83	187561.0	.01	187561.0	2.34	189345.0	.00	187561.0	.00	187561.0
4	25	500	187920.0	9.96	187825.0	.22	187825.0	2.33	189574.0	.00	187826.0	.00	187825.0
5	25	500	188628.0	17.33	188103.0	.92	188103.0	.63	189769.0	.00	188104.0	.00	188103.0
6	25	500	188129.0	15.48	188061.0	11.41	188061.0	2.05	189741.0	.00	188061.0	.00	188061.0
7	25	500	188163.0	9.42	188048.0	.87	188048.0	2.91	189860.0	.00	188049.0	.00	188048.0
8	25	500	188363.0	21.37	188246.0	1.32	188246.0	2.99	190081.0	.00	188247.0	.00	188246.0
9	25	500	188292.0	.66	188292.0	3.08	188292.0	1.88	190087.0	.00	188292.0	.00	188292.0
10	25	500	187837.0	9.98	187833.0	4.30	187833.0	2.29	189644.0	.00	187834.0	.00	187833.0
1	25	1000	376547.0	1.59	376547.0	.52	376547.0	1.50	379716.0	.00	376547.0	.03	376547.0
2	25	1000	375853.0	.02	375853.0	.15	375853.0	1.87	379108.0	.00	375853.0	.03	375853.0
3	25	1000	376317.0	23.60	376316.0	.70	376316.0	1.54	379210.0	.00	376316.0	.03	376316.0
4	25	1000	376606.0	3.67	376606.0	.31	376606.0	1.45	379369.0	.00	376606.0	.04	376606.0
5	25	1000	375957.0	1.82	375957.0	.17	375957.0	1.32	379175.0	.00	375957.0	.03	375957.0
6	25	1000	376585.0	1.47	376585.0	.24	376585.0	1.52	379511.0	.00	376585.0	.03	376585.0
7	25	1000	376450.0	.15	376450.0	.02	376450.0	1.69	379246.0	.00	376450.0	.03	376450.0
8	25	1000	375989.0	.10	375989.0	.01	375989.0	1.62	379135.0	.00	375989.0	.04	375989.0
9	25	1000	376044.0	19.41	376038.0	.03	376038.0	1.25	378916.0	.00	376038.0	.03	376038.0
10	25	1000	376225.0	3.64	376225.0	.02	376225.0	1.43	378781.0	.00	376225.0	.03	376225.0

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