

The Boston house-price data of Harrison, D. and Rubinfeld, D.L.  
'Hedonic  
prices and the demand for clean air', J. Environ. Economics &  
Management,  
vol.5, 81-102, 1978. Used in Belsley, Kuh & Welsch, 'Regression  
diagnostics  
...', Wiley, 1980. N.B. Various transformations are used in the table  
on  
pages 244-261 of the latter.

Variables in order:

CRIM per capita crime rate by town  
ZN proportion of residential land zoned for lots over 25,000  
sq.ft.  
INDUS proportion of non-retail business acres per town  
CHAS Charles River dummy variable (= 1 if tract bounds river; 0  
otherwise)  
NOX nitric oxides concentration (parts per 10 million)  
RM average number of rooms per dwelling  
AGE proportion of owner-occupied units built prior to 1940  
DIS weighted distances to five Boston employment centres  
RAD index of accessibility to radial highways  
TAX full-value property-tax rate per \$10,000  
PTRATIO pupil-teacher ratio by town  
B  $1000(B_k - 0.63)^2$  where  $B_k$  is the proportion of blacks by town  
LSTAT % lower status of the population  
MEDV Median value of owner-occupied homes in \$1000's

0.00632	18.00	2.310	0	0.5380	6.5750	65.20	4.0900	1	296.0
15.30									
396.90	4.98	24.00							
0.02731	0.00	7.070	0	0.4690	6.4210	78.90	4.9671	2	242.0
17.80									
396.90	9.14	21.60							
0.02729	0.00	7.070	0	0.4690	7.1850	61.10	4.9671	2	242.0
17.80									
392.83	4.03	34.70							
0.03237	0.00	2.180	0	0.4580	6.9980	45.80	6.0622	3	222.0
18.70									
394.63	2.94	33.40							
0.06905	0.00	2.180	0	0.4580	7.1470	54.20	6.0622	3	222.0
18.70									
396.90	5.33	36.20							
0.02985	0.00	2.180	0	0.4580	6.4300	58.70	6.0622	3	222.0
18.70									
394.12	5.21	28.70							
0.08829	12.50	7.870	0	0.5240	6.0120	66.60	5.5605	5	311.0
15.20									
395.60	12.43	22.90							
0.14455	12.50	7.870	0	0.5240	6.1720	96.10	5.9505	5	311.0

15.20										
396.90	19.15	27.10								
0.21124	12.50	7.870	0	0.5240	5.6310	100.00	6.0821	5	311.0	
15.20										
386.63	29.93	16.50								
0.17004	12.50	7.870	0	0.5240	6.0040	85.90	6.5921	5	311.0	
15.20										
386.71	17.10	18.90								
0.22489	12.50	7.870	0	0.5240	6.3770	94.30	6.3467	5	311.0	
15.20										
392.52	20.45	15.00								
0.11747	12.50	7.870	0	0.5240	6.0090	82.90	6.2267	5	311.0	
15.20										
396.90	13.27	18.90								
0.09378	12.50	7.870	0	0.5240	5.8890	39.00	5.4509	5	311.0	
15.20										
390.50	15.71	21.70								
0.62976	0.00	8.140	0	0.5380	5.9490	61.80	4.7075	4	307.0	
21.00										
396.90	8.26	20.40								
0.63796	0.00	8.140	0	0.5380	6.0960	84.50	4.4619	4	307.0	
21.00										
380.02	10.26	18.20								
0.62739	0.00	8.140	0	0.5380	5.8340	56.50	4.4986	4	307.0	
21.00										
395.62	8.47	19.90								
1.05393	0.00	8.140	0	0.5380	5.9350	29.30	4.4986	4	307.0	
21.00										
386.85	6.58	23.10								
0.78420	0.00	8.140	0	0.5380	5.9900	81.70	4.2579	4	307.0	
21.00										
386.75	14.67	17.50								
0.80271	0.00	8.140	0	0.5380	5.4560	36.60	3.7965	4	307.0	
21.00										
288.99	11.69	20.20								
0.72580	0.00	8.140	0	0.5380	5.7270	69.50	3.7965	4	307.0	
21.00										
390.95	11.28	18.20								
1.25179	0.00	8.140	0	0.5380	5.5700	98.10	3.7979	4	307.0	
21.00										
376.57	21.02	13.60								
0.85204	0.00	8.140	0	0.5380	5.9650	89.20	4.0123	4	307.0	
21.00										
392.53	13.83	19.60								
1.23247	0.00	8.140	0	0.5380	6.1420	91.70	3.9769	4	307.0	
21.00										
396.90	18.72	15.20								
0.98843	0.00	8.140	0	0.5380	5.8130	100.00	4.0952	4	307.0	
21.00										
394.54	19.88	14.50								
0.75026	0.00	8.140	0	0.5380	5.9240	94.10	4.3996	4	307.0	

21.00										
394.33	16.30	15.60								
0.84054	0.00	8.140	0	0.5380	5.5990	85.70	4.4546	4	307.0	
21.00										
303.42	16.51	13.90								
0.67191	0.00	8.140	0	0.5380	5.8130	90.30	4.6820	4	307.0	
21.00										
376.88	14.81	16.60								
0.95577	0.00	8.140	0	0.5380	6.0470	88.80	4.4534	4	307.0	
21.00										
306.38	17.28	14.80								
0.77299	0.00	8.140	0	0.5380	6.4950	94.40	4.4547	4	307.0	
21.00										
387.94	12.80	18.40								
1.00245	0.00	8.140	0	0.5380	6.6740	87.30	4.2390	4	307.0	
21.00										
380.23	11.98	21.00								
1.13081	0.00	8.140	0	0.5380	5.7130	94.10	4.2330	4	307.0	
21.00										
360.17	22.60	12.70								
1.35472	0.00	8.140	0	0.5380	6.0720	100.00	4.1750	4	307.0	
21.00										
376.73	13.04	14.50								
1.38799	0.00	8.140	0	0.5380	5.9500	82.00	3.9900	4	307.0	
21.00										
232.60	27.71	13.20								
1.15172	0.00	8.140	0	0.5380	5.7010	95.00	3.7872	4	307.0	
21.00										
358.77	18.35	13.10								
1.61282	0.00	8.140	0	0.5380	6.0960	96.90	3.7598	4	307.0	
21.00										
248.31	20.34	13.50								
0.06417	0.00	5.960	0	0.4990	5.9330	68.20	3.3603	5	279.0	
19.20										
396.90	9.68	18.90								
0.09744	0.00	5.960	0	0.4990	5.8410	61.40	3.3779	5	279.0	
19.20										
377.56	11.41	20.00								
0.08014	0.00	5.960	0	0.4990	5.8500	41.50	3.9342	5	279.0	
19.20										
396.90	8.77	21.00								
0.17505	0.00	5.960	0	0.4990	5.9660	30.20	3.8473	5	279.0	
19.20										
393.43	10.13	24.70								
0.02763	75.00	2.950	0	0.4280	6.5950	21.80	5.4011	3	252.0	
18.30										
395.63	4.32	30.80								
0.03359	75.00	2.950	0	0.4280	7.0240	15.80	5.4011	3	252.0	
18.30										
395.62	1.98	34.90								
0.12744	0.00	6.910	0	0.4480	6.7700	2.90	5.7209	3	233.0	

17.90										
385.41	4.84	26.60								
0.14150	0.00	6.910	0	0.4480	6.1690	6.60	5.7209	3	233.0	
17.90										
383.37	5.81	25.30								
0.15936	0.00	6.910	0	0.4480	6.2110	6.50	5.7209	3	233.0	
17.90										
394.46	7.44	24.70								
0.12269	0.00	6.910	0	0.4480	6.0690	40.00	5.7209	3	233.0	
17.90										
389.39	9.55	21.20								
0.17142	0.00	6.910	0	0.4480	5.6820	33.80	5.1004	3	233.0	
17.90										
396.90	10.21	19.30								
0.18836	0.00	6.910	0	0.4480	5.7860	33.30	5.1004	3	233.0	
17.90										
396.90	14.15	20.00								
0.22927	0.00	6.910	0	0.4480	6.0300	85.50	5.6894	3	233.0	
17.90										
392.74	18.80	16.60								
0.25387	0.00	6.910	0	0.4480	5.3990	95.30	5.8700	3	233.0	
17.90										
396.90	30.81	14.40								
0.21977	0.00	6.910	0	0.4480	5.6020	62.00	6.0877	3	233.0	
17.90										
396.90	16.20	19.40								
0.08873	21.00	5.640	0	0.4390	5.9630	45.70	6.8147	4	243.0	
16.80										
395.56	13.45	19.70								
0.04337	21.00	5.640	0	0.4390	6.1150	63.00	6.8147	4	243.0	
16.80										
393.97	9.43	20.50								
0.05360	21.00	5.640	0	0.4390	6.5110	21.10	6.8147	4	243.0	
16.80										
396.90	5.28	25.00								
0.04981	21.00	5.640	0	0.4390	5.9980	21.40	6.8147	4	243.0	
16.80										
396.90	8.43	23.40								
0.01360	75.00	4.000	0	0.4100	5.8880	47.60	7.3197	3	469.0	
21.10										
396.90	14.80	18.90								
0.01311	90.00	1.220	0	0.4030	7.2490	21.90	8.6966	5	226.0	
17.90										
395.93	4.81	35.40								
0.02055	85.00	0.740	0	0.4100	6.3830	35.70	9.1876	2	313.0	
17.30										
396.90	5.77	24.70								
0.01432	100.00	1.320	0	0.4110	6.8160	40.50	8.3248	5	256.0	
15.10										
392.90	3.95	31.60								
0.15445	25.00	5.130	0	0.4530	6.1450	29.20	7.8148	8	284.0	

19.70										
390.68	6.86	23.30								
0.10328	25.00	5.130	0	0.4530	5.9270	47.20	6.9320	8	284.0	
19.70										
396.90	9.22	19.60								
0.14932	25.00	5.130	0	0.4530	5.7410	66.20	7.2254	8	284.0	
19.70										
395.11	13.15	18.70								
0.17171	25.00	5.130	0	0.4530	5.9660	93.40	6.8185	8	284.0	
19.70										
378.08	14.44	16.00								
0.11027	25.00	5.130	0	0.4530	6.4560	67.80	7.2255	8	284.0	
19.70										
396.90	6.73	22.20								
0.12650	25.00	5.130	0	0.4530	6.7620	43.40	7.9809	8	284.0	
19.70										
395.58	9.50	25.00								
0.01951	17.50	1.380	0	0.4161	7.1040	59.50	9.2229	3	216.0	
18.60										
393.24	8.05	33.00								
0.03584	80.00	3.370	0	0.3980	6.2900	17.80	6.6115	4	337.0	
16.10										
396.90	4.67	23.50								
0.04379	80.00	3.370	0	0.3980	5.7870	31.10	6.6115	4	337.0	
16.10										
396.90	10.24	19.40								
0.05789	12.50	6.070	0	0.4090	5.8780	21.40	6.4980	4	345.0	
18.90										
396.21	8.10	22.00								
0.13554	12.50	6.070	0	0.4090	5.5940	36.80	6.4980	4	345.0	
18.90										
396.90	13.09	17.40								
0.12816	12.50	6.070	0	0.4090	5.8850	33.00	6.4980	4	345.0	
18.90										
396.90	8.79	20.90								
0.08826	0.00	10.810	0	0.4130	6.4170	6.60	5.2873	4	305.0	
19.20										
383.73	6.72	24.20								
0.15876	0.00	10.810	0	0.4130	5.9610	17.50	5.2873	4	305.0	
19.20										
376.94	9.88	21.70								
0.09164	0.00	10.810	0	0.4130	6.0650	7.80	5.2873	4	305.0	
19.20										
390.91	5.52	22.80								
0.19539	0.00	10.810	0	0.4130	6.2450	6.20	5.2873	4	305.0	
19.20										
377.17	7.54	23.40								
0.07896	0.00	12.830	0	0.4370	6.2730	6.00	4.2515	5	398.0	
18.70										
394.92	6.78	24.10								
0.09512	0.00	12.830	0	0.4370	6.2860	45.00	4.5026	5	398.0	

18.70										
383.23	8.94	21.40								
0.10153	0.00	12.830	0	0.4370	6.2790	74.50	4.0522	5	398.0	
18.70										
373.66	11.97	20.00								
0.08707	0.00	12.830	0	0.4370	6.1400	45.80	4.0905	5	398.0	
18.70										
386.96	10.27	20.80								
0.05646	0.00	12.830	0	0.4370	6.2320	53.70	5.0141	5	398.0	
18.70										
386.40	12.34	21.20								
0.08387	0.00	12.830	0	0.4370	5.8740	36.60	4.5026	5	398.0	
18.70										
396.06	9.10	20.30								
0.04113	25.00	4.860	0	0.4260	6.7270	33.50	5.4007	4	281.0	
19.00										
396.90	5.29	28.00								
0.04462	25.00	4.860	0	0.4260	6.6190	70.40	5.4007	4	281.0	
19.00										
395.63	7.22	23.90								
0.03659	25.00	4.860	0	0.4260	6.3020	32.20	5.4007	4	281.0	
19.00										
396.90	6.72	24.80								
0.03551	25.00	4.860	0	0.4260	6.1670	46.70	5.4007	4	281.0	
19.00										
390.64	7.51	22.90								
0.05059	0.00	4.490	0	0.4490	6.3890	48.00	4.7794	3	247.0	
18.50										
396.90	9.62	23.90								
0.05735	0.00	4.490	0	0.4490	6.6300	56.10	4.4377	3	247.0	
18.50										
392.30	6.53	26.60								
0.05188	0.00	4.490	0	0.4490	6.0150	45.10	4.4272	3	247.0	
18.50										
395.99	12.86	22.50								
0.07151	0.00	4.490	0	0.4490	6.1210	56.80	3.7476	3	247.0	
18.50										
395.15	8.44	22.20								
0.05660	0.00	3.410	0	0.4890	7.0070	86.30	3.4217	2	270.0	
17.80										
396.90	5.50	23.60								
0.05302	0.00	3.410	0	0.4890	7.0790	63.10	3.4145	2	270.0	
17.80										
396.06	5.70	28.70								
0.04684	0.00	3.410	0	0.4890	6.4170	66.10	3.0923	2	270.0	
17.80										
392.18	8.81	22.60								
0.03932	0.00	3.410	0	0.4890	6.4050	73.90	3.0921	2	270.0	
17.80										
393.55	8.20	22.00								
0.04203	28.00	15.040	0	0.4640	6.4420	53.60	3.6659	4	270.0	

18.20										
395.01	8.16	22.90								
0.02875	28.00	15.040	0	0.4640	6.2110	28.90	3.6659	4	270.0	
18.20										
396.33	6.21	25.00								
0.04294	28.00	15.040	0	0.4640	6.2490	77.30	3.6150	4	270.0	
18.20										
396.90	10.59	20.60								
0.12204	0.00	2.890	0	0.4450	6.6250	57.80	3.4952	2	276.0	
18.00										
357.98	6.65	28.40								
0.11504	0.00	2.890	0	0.4450	6.1630	69.60	3.4952	2	276.0	
18.00										
391.83	11.34	21.40								
0.12083	0.00	2.890	0	0.4450	8.0690	76.00	3.4952	2	276.0	
18.00										
396.90	4.21	38.70								
0.08187	0.00	2.890	0	0.4450	7.8200	36.90	3.4952	2	276.0	
18.00										
393.53	3.57	43.80								
0.06860	0.00	2.890	0	0.4450	7.4160	62.50	3.4952	2	276.0	
18.00										
396.90	6.19	33.20								
0.14866	0.00	8.560	0	0.5200	6.7270	79.90	2.7778	5	384.0	
20.90										
394.76	9.42	27.50								
0.11432	0.00	8.560	0	0.5200	6.7810	71.30	2.8561	5	384.0	
20.90										
395.58	7.67	26.50								
0.22876	0.00	8.560	0	0.5200	6.4050	85.40	2.7147	5	384.0	
20.90										
70.80	10.63	18.60								
0.21161	0.00	8.560	0	0.5200	6.1370	87.40	2.7147	5	384.0	
20.90										
394.47	13.44	19.30								
0.13960	0.00	8.560	0	0.5200	6.1670	90.00	2.4210	5	384.0	
20.90										
392.69	12.33	20.10								
0.13262	0.00	8.560	0	0.5200	5.8510	96.70	2.1069	5	384.0	
20.90										
394.05	16.47	19.50								
0.17120	0.00	8.560	0	0.5200	5.8360	91.90	2.2110	5	384.0	
20.90										
395.67	18.66	19.50								
0.13117	0.00	8.560	0	0.5200	6.1270	85.20	2.1224	5	384.0	
20.90										
387.69	14.09	20.40								
0.12802	0.00	8.560	0	0.5200	6.4740	97.10	2.4329	5	384.0	
20.90										
395.24	12.27	19.80								
0.26363	0.00	8.560	0	0.5200	6.2290	91.20	2.5451	5	384.0	

20.90										
391.23	15.55	19.40								
0.10793	0.00	8.560	0	0.5200	6.1950	54.40	2.7778	5	384.0	
20.90										
393.49	13.00	21.70								
0.10084	0.00	10.010	0	0.5470	6.7150	81.60	2.6775	6	432.0	
17.80										
395.59	10.16	22.80								
0.12329	0.00	10.010	0	0.5470	5.9130	92.90	2.3534	6	432.0	
17.80										
394.95	16.21	18.80								
0.22212	0.00	10.010	0	0.5470	6.0920	95.40	2.5480	6	432.0	
17.80										
396.90	17.09	18.70								
0.14231	0.00	10.010	0	0.5470	6.2540	84.20	2.2565	6	432.0	
17.80										
388.74	10.45	18.50								
0.17134	0.00	10.010	0	0.5470	5.9280	88.20	2.4631	6	432.0	
17.80										
344.91	15.76	18.30								
0.13158	0.00	10.010	0	0.5470	6.1760	72.50	2.7301	6	432.0	
17.80										
393.30	12.04	21.20								
0.15098	0.00	10.010	0	0.5470	6.0210	82.60	2.7474	6	432.0	
17.80										
394.51	10.30	19.20								
0.13058	0.00	10.010	0	0.5470	5.8720	73.10	2.4775	6	432.0	
17.80										
338.63	15.37	20.40								
0.14476	0.00	10.010	0	0.5470	5.7310	65.20	2.7592	6	432.0	
17.80										
391.50	13.61	19.30								
0.06899	0.00	25.650	0	0.5810	5.8700	69.70	2.2577	2	188.0	
19.10										
389.15	14.37	22.00								
0.07165	0.00	25.650	0	0.5810	6.0040	84.10	2.1974	2	188.0	
19.10										
377.67	14.27	20.30								
0.09299	0.00	25.650	0	0.5810	5.9610	92.90	2.0869	2	188.0	
19.10										
378.09	17.93	20.50								
0.15038	0.00	25.650	0	0.5810	5.8560	97.00	1.9444	2	188.0	
19.10										
370.31	25.41	17.30								
0.09849	0.00	25.650	0	0.5810	5.8790	95.80	2.0063	2	188.0	
19.10										
379.38	17.58	18.80								
0.16902	0.00	25.650	0	0.5810	5.9860	88.40	1.9929	2	188.0	
19.10										
385.02	14.81	21.40								
0.38735	0.00	25.650	0	0.5810	5.6130	95.60	1.7572	2	188.0	



19.10										
359.29	27.26	15.70								
0.25915	0.00	21.890	0	0.6240	5.6930	96.00	1.7883	4	437.0	
21.20										
392.11	17.19	16.20								
0.32543	0.00	21.890	0	0.6240	6.4310	98.80	1.8125	4	437.0	
21.20										
396.90	15.39	18.00								
0.88125	0.00	21.890	0	0.6240	5.6370	94.70	1.9799	4	437.0	
21.20										
396.90	18.34	14.30								
0.34006	0.00	21.890	0	0.6240	6.4580	98.90	2.1185	4	437.0	
21.20										
395.04	12.60	19.20								
1.19294	0.00	21.890	0	0.6240	6.3260	97.70	2.2710	4	437.0	
21.20										
396.90	12.26	19.60								
0.59005	0.00	21.890	0	0.6240	6.3720	97.90	2.3274	4	437.0	
21.20										
385.76	11.12	23.00								
0.32982	0.00	21.890	0	0.6240	5.8220	95.40	2.4699	4	437.0	
21.20										
388.69	15.03	18.40								
0.97617	0.00	21.890	0	0.6240	5.7570	98.40	2.3460	4	437.0	
21.20										
262.76	17.31	15.60								
0.55778	0.00	21.890	0	0.6240	6.3350	98.20	2.1107	4	437.0	
21.20										
394.67	16.96	18.10								
0.32264	0.00	21.890	0	0.6240	5.9420	93.50	1.9669	4	437.0	
21.20										
378.25	16.90	17.40								
0.35233	0.00	21.890	0	0.6240	6.4540	98.40	1.8498	4	437.0	
21.20										
394.08	14.59	17.10								
0.24980	0.00	21.890	0	0.6240	5.8570	98.20	1.6686	4	437.0	
21.20										
392.04	21.32	13.30								
0.54452	0.00	21.890	0	0.6240	6.1510	97.90	1.6687	4	437.0	
21.20										
396.90	18.46	17.80								
0.29090	0.00	21.890	0	0.6240	6.1740	93.60	1.6119	4	437.0	
21.20										
388.08	24.16	14.00								
1.62864	0.00	21.890	0	0.6240	5.0190	100.00	1.4394	4	437.0	
21.20										
396.90	34.41	14.40								
3.32105	0.00	19.580	1	0.8710	5.4030	100.00	1.3216	5	403.0	
14.70										
396.90	26.82	13.40								
4.09740	0.00	19.580	0	0.8710	5.4680	100.00	1.4118	5	403.0	

14.70										
396.90	26.42	15.60								
2.77974	0.00	19.580	0	0.8710	4.9030	97.80	1.3459	5	403.0	
14.70										
396.90	29.29	11.80								
2.37934	0.00	19.580	0	0.8710	6.1300	100.00	1.4191	5	403.0	
14.70										
172.91	27.80	13.80								
2.15505	0.00	19.580	0	0.8710	5.6280	100.00	1.5166	5	403.0	
14.70										
169.27	16.65	15.60								
2.36862	0.00	19.580	0	0.8710	4.9260	95.70	1.4608	5	403.0	
14.70										
391.71	29.53	14.60								
2.33099	0.00	19.580	0	0.8710	5.1860	93.80	1.5296	5	403.0	
14.70										
356.99	28.32	17.80								
2.73397	0.00	19.580	0	0.8710	5.5970	94.90	1.5257	5	403.0	
14.70										
351.85	21.45	15.40								
1.65660	0.00	19.580	0	0.8710	6.1220	97.30	1.6180	5	403.0	
14.70										
372.80	14.10	21.50								
1.49632	0.00	19.580	0	0.8710	5.4040	100.00	1.5916	5	403.0	
14.70										
341.60	13.28	19.60								
1.12658	0.00	19.580	1	0.8710	5.0120	88.00	1.6102	5	403.0	
14.70										
343.28	12.12	15.30								
2.14918	0.00	19.580	0	0.8710	5.7090	98.50	1.6232	5	403.0	
14.70										
261.95	15.79	19.40								
1.41385	0.00	19.580	1	0.8710	6.1290	96.00	1.7494	5	403.0	
14.70										
321.02	15.12	17.00								
3.53501	0.00	19.580	1	0.8710	6.1520	82.60	1.7455	5	403.0	
14.70										
88.01	15.02	15.60								
2.44668	0.00	19.580	0	0.8710	5.2720	94.00	1.7364	5	403.0	
14.70										
88.63	16.14	13.10								
1.22358	0.00	19.580	0	0.6050	6.9430	97.40	1.8773	5	403.0	
14.70										
363.43	4.59	41.30								
1.34284	0.00	19.580	0	0.6050	6.0660	100.00	1.7573	5	403.0	
14.70										
353.89	6.43	24.30								
1.42502	0.00	19.580	0	0.8710	6.5100	100.00	1.7659	5	403.0	
14.70										
364.31	7.39	23.30								
1.27346	0.00	19.580	1	0.6050	6.2500	92.60	1.7984	5	403.0	

14.70										
338.92	5.50	27.00								
1.46336	0.00	19.580	0	0.6050	7.4890	90.80	1.9709	5	403.0	
14.70										
374.43	1.73	50.00								
1.83377	0.00	19.580	1	0.6050	7.8020	98.20	2.0407	5	403.0	
14.70										
389.61	1.92	50.00								
1.51902	0.00	19.580	1	0.6050	8.3750	93.90	2.1620	5	403.0	
14.70										
388.45	3.32	50.00								
2.24236	0.00	19.580	0	0.6050	5.8540	91.80	2.4220	5	403.0	
14.70										
395.11	11.64	22.70								
2.92400	0.00	19.580	0	0.6050	6.1010	93.00	2.2834	5	403.0	
14.70										
240.16	9.81	25.00								
2.01019	0.00	19.580	0	0.6050	7.9290	96.20	2.0459	5	403.0	
14.70										
369.30	3.70	50.00								
1.80028	0.00	19.580	0	0.6050	5.8770	79.20	2.4259	5	403.0	
14.70										
227.61	12.14	23.80								
2.30040	0.00	19.580	0	0.6050	6.3190	96.10	2.1000	5	403.0	
14.70										
297.09	11.10	23.80								
2.44953	0.00	19.580	0	0.6050	6.4020	95.20	2.2625	5	403.0	
14.70										
330.04	11.32	22.30								
1.20742	0.00	19.580	0	0.6050	5.8750	94.60	2.4259	5	403.0	
14.70										
292.29	14.43	17.40								
2.31390	0.00	19.580	0	0.6050	5.8800	97.30	2.3887	5	403.0	
14.70										
348.13	12.03	19.10								
0.13914	0.00	4.050	0	0.5100	5.5720	88.50	2.5961	5	296.0	
16.60										
396.90	14.69	23.10								
0.09178	0.00	4.050	0	0.5100	6.4160	84.10	2.6463	5	296.0	
16.60										
395.50	9.04	23.60								
0.08447	0.00	4.050	0	0.5100	5.8590	68.70	2.7019	5	296.0	
16.60										
393.23	9.64	22.60								
0.06664	0.00	4.050	0	0.5100	6.5460	33.10	3.1323	5	296.0	
16.60										
390.96	5.33	29.40								
0.07022	0.00	4.050	0	0.5100	6.0200	47.20	3.5549	5	296.0	
16.60										
393.23	10.11	23.20								
0.05425	0.00	4.050	0	0.5100	6.3150	73.40	3.3175	5	296.0	

16.60										
395.60	6.29	24.60								
0.06642	0.00	4.050	0	0.5100	6.8600	74.40	2.9153	5	296.0	
16.60										
391.27	6.92	29.90								
0.05780	0.00	2.460	0	0.4880	6.9800	58.40	2.8290	3	193.0	
17.80										
396.90	5.04	37.20								
0.06588	0.00	2.460	0	0.4880	7.7650	83.30	2.7410	3	193.0	
17.80										
395.56	7.56	39.80								
0.06888	0.00	2.460	0	0.4880	6.1440	62.20	2.5979	3	193.0	
17.80										
396.90	9.45	36.20								
0.09103	0.00	2.460	0	0.4880	7.1550	92.20	2.7006	3	193.0	
17.80										
394.12	4.82	37.90								
0.10008	0.00	2.460	0	0.4880	6.5630	95.60	2.8470	3	193.0	
17.80										
396.90	5.68	32.50								
0.08308	0.00	2.460	0	0.4880	5.6040	89.80	2.9879	3	193.0	
17.80										
391.00	13.98	26.40								
0.06047	0.00	2.460	0	0.4880	6.1530	68.80	3.2797	3	193.0	
17.80										
387.11	13.15	29.60								
0.05602	0.00	2.460	0	0.4880	7.8310	53.60	3.1992	3	193.0	
17.80										
392.63	4.45	50.00								
0.07875	45.00	3.440	0	0.4370	6.7820	41.10	3.7886	5	398.0	
15.20										
393.87	6.68	32.00								
0.12579	45.00	3.440	0	0.4370	6.5560	29.10	4.5667	5	398.0	
15.20										
382.84	4.56	29.80								
0.08370	45.00	3.440	0	0.4370	7.1850	38.90	4.5667	5	398.0	
15.20										
396.90	5.39	34.90								
0.09068	45.00	3.440	0	0.4370	6.9510	21.50	6.4798	5	398.0	
15.20										
377.68	5.10	37.00								
0.06911	45.00	3.440	0	0.4370	6.7390	30.80	6.4798	5	398.0	
15.20										
389.71	4.69	30.50								
0.08664	45.00	3.440	0	0.4370	7.1780	26.30	6.4798	5	398.0	
15.20										
390.49	2.87	36.40								
0.02187	60.00	2.930	0	0.4010	6.8000	9.90	6.2196	1	265.0	
15.60										
393.37	5.03	31.10								
0.01439	60.00	2.930	0	0.4010	6.6040	18.80	6.2196	1	265.0	

15.60										
376.70	4.38	29.10								
0.01381	80.00	0.460	0	0.4220	7.8750	32.00	5.6484	4	255.0	
14.40										
394.23	2.97	50.00								
0.04011	80.00	1.520	0	0.4040	7.2870	34.10	7.3090	2	329.0	
12.60										
396.90	4.08	33.30								
0.04666	80.00	1.520	0	0.4040	7.1070	36.60	7.3090	2	329.0	
12.60										
354.31	8.61	30.30								
0.03768	80.00	1.520	0	0.4040	7.2740	38.30	7.3090	2	329.0	
12.60										
392.20	6.62	34.60								
0.03150	95.00	1.470	0	0.4030	6.9750	15.30	7.6534	3	402.0	
17.00										
396.90	4.56	34.90								
0.01778	95.00	1.470	0	0.4030	7.1350	13.90	7.6534	3	402.0	
17.00										
384.30	4.45	32.90								
0.03445	82.50	2.030	0	0.4150	6.1620	38.40	6.2700	2	348.0	
14.70										
393.77	7.43	24.10								
0.02177	82.50	2.030	0	0.4150	7.6100	15.70	6.2700	2	348.0	
14.70										
395.38	3.11	42.30								
0.03510	95.00	2.680	0	0.4161	7.8530	33.20	5.1180	4	224.0	
14.70										
392.78	3.81	48.50								
0.02009	95.00	2.680	0	0.4161	8.0340	31.90	5.1180	4	224.0	
14.70										
390.55	2.88	50.00								
0.13642	0.00	10.590	0	0.4890	5.8910	22.30	3.9454	4	277.0	
18.60										
396.90	10.87	22.60								
0.22969	0.00	10.590	0	0.4890	6.3260	52.50	4.3549	4	277.0	
18.60										
394.87	10.97	24.40								
0.25199	0.00	10.590	0	0.4890	5.7830	72.70	4.3549	4	277.0	
18.60										
389.43	18.06	22.50								
0.13587	0.00	10.590	1	0.4890	6.0640	59.10	4.2392	4	277.0	
18.60										
381.32	14.66	24.40								
0.43571	0.00	10.590	1	0.4890	5.3440	100.00	3.8750	4	277.0	
18.60										
396.90	23.09	20.00								
0.17446	0.00	10.590	1	0.4890	5.9600	92.10	3.8771	4	277.0	
18.60										
393.25	17.27	21.70								
0.37578	0.00	10.590	1	0.4890	5.4040	88.60	3.6650	4	277.0	

18.60										
395.24	23.98	19.30								
0.21719	0.00	10.590	1	0.4890	5.8070	53.80	3.6526	4	277.0	
18.60										
390.94	16.03	22.40								
0.14052	0.00	10.590	0	0.4890	6.3750	32.30	3.9454	4	277.0	
18.60										
385.81	9.38	28.10								
0.28955	0.00	10.590	0	0.4890	5.4120	9.80	3.5875	4	277.0	
18.60										
348.93	29.55	23.70								
0.19802	0.00	10.590	0	0.4890	6.1820	42.40	3.9454	4	277.0	
18.60										
393.63	9.47	25.00								
0.04560	0.00	13.890	1	0.5500	5.8880	56.00	3.1121	5	276.0	
16.40										
392.80	13.51	23.30								
0.07013	0.00	13.890	0	0.5500	6.6420	85.10	3.4211	5	276.0	
16.40										
392.78	9.69	28.70								
0.11069	0.00	13.890	1	0.5500	5.9510	93.80	2.8893	5	276.0	
16.40										
396.90	17.92	21.50								
0.11425	0.00	13.890	1	0.5500	6.3730	92.40	3.3633	5	276.0	
16.40										
393.74	10.50	23.00								
0.35809	0.00	6.200	1	0.5070	6.9510	88.50	2.8617	8	307.0	
17.40										
391.70	9.71	26.70								
0.40771	0.00	6.200	1	0.5070	6.1640	91.30	3.0480	8	307.0	
17.40										
395.24	21.46	21.70								
0.62356	0.00	6.200	1	0.5070	6.8790	77.70	3.2721	8	307.0	
17.40										
390.39	9.93	27.50								
0.61470	0.00	6.200	0	0.5070	6.6180	80.80	3.2721	8	307.0	
17.40										
396.90	7.60	30.10								
0.31533	0.00	6.200	0	0.5040	8.2660	78.30	2.8944	8	307.0	
17.40										
385.05	4.14	44.80								
0.52693	0.00	6.200	0	0.5040	8.7250	83.00	2.8944	8	307.0	
17.40										
382.00	4.63	50.00								
0.38214	0.00	6.200	0	0.5040	8.0400	86.50	3.2157	8	307.0	
17.40										
387.38	3.13	37.60								
0.41238	0.00	6.200	0	0.5040	7.1630	79.90	3.2157	8	307.0	
17.40										
372.08	6.36	31.60								
0.29819	0.00	6.200	0	0.5040	7.6860	17.00	3.3751	8	307.0	

17.40										
377.51	3.92	46.70								
0.44178	0.00	6.200	0	0.5040	6.5520	21.40	3.3751	8	307.0	
17.40										
380.34	3.76	31.50								
0.53700	0.00	6.200	0	0.5040	5.9810	68.10	3.6715	8	307.0	
17.40										
378.35	11.65	24.30								
0.46296	0.00	6.200	0	0.5040	7.4120	76.90	3.6715	8	307.0	
17.40										
376.14	5.25	31.70								
0.57529	0.00	6.200	0	0.5070	8.3370	73.30	3.8384	8	307.0	
17.40										
385.91	2.47	41.70								
0.33147	0.00	6.200	0	0.5070	8.2470	70.40	3.6519	8	307.0	
17.40										
378.95	3.95	48.30								
0.44791	0.00	6.200	1	0.5070	6.7260	66.50	3.6519	8	307.0	
17.40										
360.20	8.05	29.00								
0.33045	0.00	6.200	0	0.5070	6.0860	61.50	3.6519	8	307.0	
17.40										
376.75	10.88	24.00								
0.52058	0.00	6.200	1	0.5070	6.6310	76.50	4.1480	8	307.0	
17.40										
388.45	9.54	25.10								
0.51183	0.00	6.200	0	0.5070	7.3580	71.60	4.1480	8	307.0	
17.40										
390.07	4.73	31.50								
0.08244	30.00	4.930	0	0.4280	6.4810	18.50	6.1899	6	300.0	
16.60										
379.41	6.36	23.70								
0.09252	30.00	4.930	0	0.4280	6.6060	42.20	6.1899	6	300.0	
16.60										
383.78	7.37	23.30								
0.11329	30.00	4.930	0	0.4280	6.8970	54.30	6.3361	6	300.0	
16.60										
391.25	11.38	22.00								
0.10612	30.00	4.930	0	0.4280	6.0950	65.10	6.3361	6	300.0	
16.60										
394.62	12.40	20.10								
0.10290	30.00	4.930	0	0.4280	6.3580	52.90	7.0355	6	300.0	
16.60										
372.75	11.22	22.20								
0.12757	30.00	4.930	0	0.4280	6.3930	7.80	7.0355	6	300.0	
16.60										
374.71	5.19	23.70								
0.20608	22.00	5.860	0	0.4310	5.5930	76.50	7.9549	7	330.0	
19.10										
372.49	12.50	17.60								
0.19133	22.00	5.860	0	0.4310	5.6050	70.20	7.9549	7	330.0	

19.10										
389.13	18.46	18.50								
0.33983	22.00	5.860	0	0.4310	6.1080	34.90	8.0555	7	330.0	
19.10										
390.18	9.16	24.30								
0.19657	22.00	5.860	0	0.4310	6.2260	79.20	8.0555	7	330.0	
19.10										
376.14	10.15	20.50								
0.16439	22.00	5.860	0	0.4310	6.4330	49.10	7.8265	7	330.0	
19.10										
374.71	9.52	24.50								
0.19073	22.00	5.860	0	0.4310	6.7180	17.50	7.8265	7	330.0	
19.10										
393.74	6.56	26.20								
0.14030	22.00	5.860	0	0.4310	6.4870	13.00	7.3967	7	330.0	
19.10										
396.28	5.90	24.40								
0.21409	22.00	5.860	0	0.4310	6.4380	8.90	7.3967	7	330.0	
19.10										
377.07	3.59	24.80								
0.08221	22.00	5.860	0	0.4310	6.9570	6.80	8.9067	7	330.0	
19.10										
386.09	3.53	29.60								
0.36894	22.00	5.860	0	0.4310	8.2590	8.40	8.9067	7	330.0	
19.10										
396.90	3.54	42.80								
0.04819	80.00	3.640	0	0.3920	6.1080	32.00	9.2203	1	315.0	
16.40										
392.89	6.57	21.90								
0.03548	80.00	3.640	0	0.3920	5.8760	19.10	9.2203	1	315.0	
16.40										
395.18	9.25	20.90								
0.01538	90.00	3.750	0	0.3940	7.4540	34.20	6.3361	3	244.0	
15.90										
386.34	3.11	44.00								
0.61154	20.00	3.970	0	0.6470	8.7040	86.90	1.8010	5	264.0	
13.00										
389.70	5.12	50.00								
0.66351	20.00	3.970	0	0.6470	7.3330	100.00	1.8946	5	264.0	
13.00										
383.29	7.79	36.00								
0.65665	20.00	3.970	0	0.6470	6.8420	100.00	2.0107	5	264.0	
13.00										
391.93	6.90	30.10								
0.54011	20.00	3.970	0	0.6470	7.2030	81.80	2.1121	5	264.0	
13.00										
392.80	9.59	33.80								
0.53412	20.00	3.970	0	0.6470	7.5200	89.40	2.1398	5	264.0	
13.00										
388.37	7.26	43.10								
0.52014	20.00	3.970	0	0.6470	8.3980	91.50	2.2885	5	264.0	



13.00										
386.86	5.91	48.80								
0.82526	20.00	3.970	0	0.6470	7.3270	94.50	2.0788	5	264.0	
13.00										
393.42	11.25	31.00								
0.55007	20.00	3.970	0	0.6470	7.2060	91.60	1.9301	5	264.0	
13.00										
387.89	8.10	36.50								
0.76162	20.00	3.970	0	0.6470	5.5600	62.80	1.9865	5	264.0	
13.00										
392.40	10.45	22.80								
0.78570	20.00	3.970	0	0.6470	7.0140	84.60	2.1329	5	264.0	
13.00										
384.07	14.79	30.70								
0.57834	20.00	3.970	0	0.5750	8.2970	67.00	2.4216	5	264.0	
13.00										
384.54	7.44	50.00								
0.54050	20.00	3.970	0	0.5750	7.4700	52.60	2.8720	5	264.0	
13.00										
390.30	3.16	43.50								
0.09065	20.00	6.960	1	0.4640	5.9200	61.50	3.9175	3	223.0	
18.60										
391.34	13.65	20.70								
0.29916	20.00	6.960	0	0.4640	5.8560	42.10	4.4290	3	223.0	
18.60										
388.65	13.00	21.10								
0.16211	20.00	6.960	0	0.4640	6.2400	16.30	4.4290	3	223.0	
18.60										
396.90	6.59	25.20								
0.11460	20.00	6.960	0	0.4640	6.5380	58.70	3.9175	3	223.0	
18.60										
394.96	7.73	24.40								
0.22188	20.00	6.960	1	0.4640	7.6910	51.80	4.3665	3	223.0	
18.60										
390.77	6.58	35.20								
0.05644	40.00	6.410	1	0.4470	6.7580	32.90	4.0776	4	254.0	
17.60										
396.90	3.53	32.40								
0.09604	40.00	6.410	0	0.4470	6.8540	42.80	4.2673	4	254.0	
17.60										
396.90	2.98	32.00								
0.10469	40.00	6.410	1	0.4470	7.2670	49.00	4.7872	4	254.0	
17.60										
389.25	6.05	33.20								
0.06127	40.00	6.410	1	0.4470	6.8260	27.60	4.8628	4	254.0	
17.60										
393.45	4.16	33.10								
0.07978	40.00	6.410	0	0.4470	6.4820	32.10	4.1403	4	254.0	
17.60										
396.90	7.19	29.10								
0.21038	20.00	3.330	0	0.4429	6.8120	32.20	4.1007	5	216.0	

14.90										
396.90	4.85	35.10								
0.03578	20.00	3.330	0	0.4429	7.8200	64.50	4.6947	5	216.0	
14.90										
387.31	3.76	45.40								
0.03705	20.00	3.330	0	0.4429	6.9680	37.20	5.2447	5	216.0	
14.90										
392.23	4.59	35.40								
0.06129	20.00	3.330	1	0.4429	7.6450	49.70	5.2119	5	216.0	
14.90										
377.07	3.01	46.00								
0.01501	90.00	1.210	1	0.4010	7.9230	24.80	5.8850	1	198.0	
13.60										
395.52	3.16	50.00								
0.00906	90.00	2.970	0	0.4000	7.0880	20.80	7.3073	1	285.0	
15.30										
394.72	7.85	32.20								
0.01096	55.00	2.250	0	0.3890	6.4530	31.90	7.3073	1	300.0	
15.30										
394.72	8.23	22.00								
0.01965	80.00	1.760	0	0.3850	6.2300	31.50	9.0892	1	241.0	
18.20										
341.60	12.93	20.10								
0.03871	52.50	5.320	0	0.4050	6.2090	31.30	7.3172	6	293.0	
16.60										
396.90	7.14	23.20								
0.04590	52.50	5.320	0	0.4050	6.3150	45.60	7.3172	6	293.0	
16.60										
396.90	7.60	22.30								
0.04297	52.50	5.320	0	0.4050	6.5650	22.90	7.3172	6	293.0	
16.60										
371.72	9.51	24.80								
0.03502	80.00	4.950	0	0.4110	6.8610	27.90	5.1167	4	245.0	
19.20										
396.90	3.33	28.50								
0.07886	80.00	4.950	0	0.4110	7.1480	27.70	5.1167	4	245.0	
19.20										
396.90	3.56	37.30								
0.03615	80.00	4.950	0	0.4110	6.6300	23.40	5.1167	4	245.0	
19.20										
396.90	4.70	27.90								
0.08265	0.00	13.920	0	0.4370	6.1270	18.40	5.5027	4	289.0	
16.00										
396.90	8.58	23.90								
0.08199	0.00	13.920	0	0.4370	6.0090	42.30	5.5027	4	289.0	
16.00										
396.90	10.40	21.70								
0.12932	0.00	13.920	0	0.4370	6.6780	31.10	5.9604	4	289.0	
16.00										
396.90	6.27	28.60								
0.05372	0.00	13.920	0	0.4370	6.5490	51.00	5.9604	4	289.0	

16.00										
392.85	7.39	27.10								
0.14103	0.00	13.920	0	0.4370	5.7900	58.00	6.3200	4	289.0	
16.00										
396.90	15.84	20.30								
0.06466	70.00	2.240	0	0.4000	6.3450	20.10	7.8278	5	358.0	
14.80										
368.24	4.97	22.50								
0.05561	70.00	2.240	0	0.4000	7.0410	10.00	7.8278	5	358.0	
14.80										
371.58	4.74	29.00								
0.04417	70.00	2.240	0	0.4000	6.8710	47.40	7.8278	5	358.0	
14.80										
390.86	6.07	24.80								
0.03537	34.00	6.090	0	0.4330	6.5900	40.40	5.4917	7	329.0	
16.10										
395.75	9.50	22.00								
0.09266	34.00	6.090	0	0.4330	6.4950	18.40	5.4917	7	329.0	
16.10										
383.61	8.67	26.40								
0.10000	34.00	6.090	0	0.4330	6.9820	17.70	5.4917	7	329.0	
16.10										
390.43	4.86	33.10								
0.05515	33.00	2.180	0	0.4720	7.2360	41.10	4.0220	7	222.0	
18.40										
393.68	6.93	36.10								
0.05479	33.00	2.180	0	0.4720	6.6160	58.10	3.3700	7	222.0	
18.40										
393.36	8.93	28.40								
0.07503	33.00	2.180	0	0.4720	7.4200	71.90	3.0992	7	222.0	
18.40										
396.90	6.47	33.40								
0.04932	33.00	2.180	0	0.4720	6.8490	70.30	3.1827	7	222.0	
18.40										
396.90	7.53	28.20								
0.49298	0.00	9.900	0	0.5440	6.6350	82.50	3.3175	4	304.0	
18.40										
396.90	4.54	22.80								
0.34940	0.00	9.900	0	0.5440	5.9720	76.70	3.1025	4	304.0	
18.40										
396.24	9.97	20.30								
2.63548	0.00	9.900	0	0.5440	4.9730	37.80	2.5194	4	304.0	
18.40										
350.45	12.64	16.10								
0.79041	0.00	9.900	0	0.5440	6.1220	52.80	2.6403	4	304.0	
18.40										
396.90	5.98	22.10								
0.26169	0.00	9.900	0	0.5440	6.0230	90.40	2.8340	4	304.0	
18.40										
396.30	11.72	19.40								
0.26938	0.00	9.900	0	0.5440	6.2660	82.80	3.2628	4	304.0	

18.40										
393.39	7.90	21.60								
0.36920	0.00	9.900	0	0.5440	6.5670	87.30	3.6023	4	304.0	
18.40										
395.69	9.28	23.80								
0.25356	0.00	9.900	0	0.5440	5.7050	77.70	3.9450	4	304.0	
18.40										
396.42	11.50	16.20								
0.31827	0.00	9.900	0	0.5440	5.9140	83.20	3.9986	4	304.0	
18.40										
390.70	18.33	17.80								
0.24522	0.00	9.900	0	0.5440	5.7820	71.70	4.0317	4	304.0	
18.40										
396.90	15.94	19.80								
0.40202	0.00	9.900	0	0.5440	6.3820	67.20	3.5325	4	304.0	
18.40										
395.21	10.36	23.10								
0.47547	0.00	9.900	0	0.5440	6.1130	58.80	4.0019	4	304.0	
18.40										
396.23	12.73	21.00								
0.16760	0.00	7.380	0	0.4930	6.4260	52.30	4.5404	5	287.0	
19.60										
396.90	7.20	23.80								
0.18159	0.00	7.380	0	0.4930	6.3760	54.30	4.5404	5	287.0	
19.60										
396.90	6.87	23.10								
0.35114	0.00	7.380	0	0.4930	6.0410	49.90	4.7211	5	287.0	
19.60										
396.90	7.70	20.40								
0.28392	0.00	7.380	0	0.4930	5.7080	74.30	4.7211	5	287.0	
19.60										
391.13	11.74	18.50								
0.34109	0.00	7.380	0	0.4930	6.4150	40.10	4.7211	5	287.0	
19.60										
396.90	6.12	25.00								
0.19186	0.00	7.380	0	0.4930	6.4310	14.70	5.4159	5	287.0	
19.60										
393.68	5.08	24.60								
0.30347	0.00	7.380	0	0.4930	6.3120	28.90	5.4159	5	287.0	
19.60										
396.90	6.15	23.00								
0.24103	0.00	7.380	0	0.4930	6.0830	43.70	5.4159	5	287.0	
19.60										
396.90	12.79	22.20								
0.06617	0.00	3.240	0	0.4600	5.8680	25.80	5.2146	4	430.0	
16.90										
382.44	9.97	19.30								
0.06724	0.00	3.240	0	0.4600	6.3330	17.20	5.2146	4	430.0	
16.90										
375.21	7.34	22.60								
0.04544	0.00	3.240	0	0.4600	6.1440	32.20	5.8736	4	430.0	

16.90										
368.57	9.09	19.80								
0.05023	35.00	6.060	0	0.4379	5.7060	28.40	6.6407	1	304.0	
16.90										
394.02	12.43	17.10								
0.03466	35.00	6.060	0	0.4379	6.0310	23.30	6.6407	1	304.0	
16.90										
362.25	7.83	19.40								
0.05083	0.00	5.190	0	0.5150	6.3160	38.10	6.4584	5	224.0	
20.20										
389.71	5.68	22.20								
0.03738	0.00	5.190	0	0.5150	6.3100	38.50	6.4584	5	224.0	
20.20										
389.40	6.75	20.70								
0.03961	0.00	5.190	0	0.5150	6.0370	34.50	5.9853	5	224.0	
20.20										
396.90	8.01	21.10								
0.03427	0.00	5.190	0	0.5150	5.8690	46.30	5.2311	5	224.0	
20.20										
396.90	9.80	19.50								
0.03041	0.00	5.190	0	0.5150	5.8950	59.60	5.6150	5	224.0	
20.20										
394.81	10.56	18.50								
0.03306	0.00	5.190	0	0.5150	6.0590	37.30	4.8122	5	224.0	
20.20										
396.14	8.51	20.60								
0.05497	0.00	5.190	0	0.5150	5.9850	45.40	4.8122	5	224.0	
20.20										
396.90	9.74	19.00								
0.06151	0.00	5.190	0	0.5150	5.9680	58.50	4.8122	5	224.0	
20.20										
396.90	9.29	18.70								
0.01301	35.00	1.520	0	0.4420	7.2410	49.30	7.0379	1	284.0	
15.50										
394.74	5.49	32.70								
0.02498	0.00	1.890	0	0.5180	6.5400	59.70	6.2669	1	422.0	
15.90										
389.96	8.65	16.50								
0.02543	55.00	3.780	0	0.4840	6.6960	56.40	5.7321	5	370.0	
17.60										
396.90	7.18	23.90								
0.03049	55.00	3.780	0	0.4840	6.8740	28.10	6.4654	5	370.0	
17.60										
387.97	4.61	31.20								
0.03113	0.00	4.390	0	0.4420	6.0140	48.50	8.0136	3	352.0	
18.80										
385.64	10.53	17.50								
0.06162	0.00	4.390	0	0.4420	5.8980	52.30	8.0136	3	352.0	
18.80										
364.61	12.67	17.20								
0.01870	85.00	4.150	0	0.4290	6.5160	27.70	8.5353	4	351.0	

17.90										
392.43	6.36	23.10								
0.01501	80.00	2.010	0	0.4350	6.6350	29.70	8.3440	4	280.0	
17.00										
390.94	5.99	24.50								
0.02899	40.00	1.250	0	0.4290	6.9390	34.50	8.7921	1	335.0	
19.70										
389.85	5.89	26.60								
0.06211	40.00	1.250	0	0.4290	6.4900	44.40	8.7921	1	335.0	
19.70										
396.90	5.98	22.90								
0.07950	60.00	1.690	0	0.4110	6.5790	35.90	10.7103	4	411.0	
18.30										
370.78	5.49	24.10								
0.07244	60.00	1.690	0	0.4110	5.8840	18.50	10.7103	4	411.0	
18.30										
392.33	7.79	18.60								
0.01709	90.00	2.020	0	0.4100	6.7280	36.10	12.1265	5	187.0	
17.00										
384.46	4.50	30.10								
0.04301	80.00	1.910	0	0.4130	5.6630	21.90	10.5857	4	334.0	
22.00										
382.80	8.05	18.20								
0.10659	80.00	1.910	0	0.4130	5.9360	19.50	10.5857	4	334.0	
22.00										
376.04	5.57	20.60								
8.98296	0.00	18.100	1	0.7700	6.2120	97.40	2.1222	24	666.0	
20.20										
377.73	17.60	17.80								
3.84970	0.00	18.100	1	0.7700	6.3950	91.00	2.5052	24	666.0	
20.20										
391.34	13.27	21.70								
5.20177	0.00	18.100	1	0.7700	6.1270	83.40	2.7227	24	666.0	
20.20										
395.43	11.48	22.70								
4.26131	0.00	18.100	0	0.7700	6.1120	81.30	2.5091	24	666.0	
20.20										
390.74	12.67	22.60								
4.54192	0.00	18.100	0	0.7700	6.3980	88.00	2.5182	24	666.0	
20.20										
374.56	7.79	25.00								
3.83684	0.00	18.100	0	0.7700	6.2510	91.10	2.2955	24	666.0	
20.20										
350.65	14.19	19.90								
3.67822	0.00	18.100	0	0.7700	5.3620	96.20	2.1036	24	666.0	
20.20										
380.79	10.19	20.80								
4.22239	0.00	18.100	1	0.7700	5.8030	89.00	1.9047	24	666.0	
20.20										
353.04	14.64	16.80								
3.47428	0.00	18.100	1	0.7180	8.7800	82.90	1.9047	24	666.0	

20.20										
354.55	5.29	21.90								
4.55587	0.00	18.100	0	0.7180	3.5610	87.90	1.6132	24	666.0	
20.20										
354.70	7.12	27.50								
3.69695	0.00	18.100	0	0.7180	4.9630	91.40	1.7523	24	666.0	
20.20										
316.03	14.00	21.90								
13.52220	0.00	18.100	0	0.6310	3.8630	100.00	1.5106	24	666.0	
20.20										
131.42	13.33	23.10								
4.89822	0.00	18.100	0	0.6310	4.9700	100.00	1.3325	24	666.0	
20.20										
375.52	3.26	50.00								
5.66998	0.00	18.100	1	0.6310	6.6830	96.80	1.3567	24	666.0	
20.20										
375.33	3.73	50.00								
6.53876	0.00	18.100	1	0.6310	7.0160	97.50	1.2024	24	666.0	
20.20										
392.05	2.96	50.00								
9.23230	0.00	18.100	0	0.6310	6.2160	100.00	1.1691	24	666.0	
20.20										
366.15	9.53	50.00								
8.26725	0.00	18.100	1	0.6680	5.8750	89.60	1.1296	24	666.0	
20.20										
347.88	8.88	50.00								
11.10810	0.00	18.100	0	0.6680	4.9060	100.00	1.1742	24	666.0	
20.20										
396.90	34.77	13.80								
18.49820	0.00	18.100	0	0.6680	4.1380	100.00	1.1370	24	666.0	
20.20										
396.90	37.97	13.80								
19.60910	0.00	18.100	0	0.6710	7.3130	97.90	1.3163	24	666.0	
20.20										
396.90	13.44	15.00								
15.28800	0.00	18.100	0	0.6710	6.6490	93.30	1.3449	24	666.0	
20.20										
363.02	23.24	13.90								
9.82349	0.00	18.100	0	0.6710	6.7940	98.80	1.3580	24	666.0	
20.20										
396.90	21.24	13.30								
23.64820	0.00	18.100	0	0.6710	6.3800	96.20	1.3861	24	666.0	
20.20										
396.90	23.69	13.10								
17.86670	0.00	18.100	0	0.6710	6.2230	100.00	1.3861	24	666.0	
20.20										
393.74	21.78	10.20								
88.97620	0.00	18.100	0	0.6710	6.9680	91.90	1.4165	24	666.0	
20.20										
396.90	17.21	10.40								
15.87440	0.00	18.100	0	0.6710	6.5450	99.10	1.5192	24	666.0	

20.20										
396.90	21.08	10.90								
9.18702	0.00	18.100	0	0.7000	5.5360	100.00	1.5804	24	666.0	
20.20										
396.90	23.60	11.30								
7.99248	0.00	18.100	0	0.7000	5.5200	100.00	1.5331	24	666.0	
20.20										
396.90	24.56	12.30								
20.08490	0.00	18.100	0	0.7000	4.3680	91.20	1.4395	24	666.0	
20.20										
285.83	30.63	8.80								
16.81180	0.00	18.100	0	0.7000	5.2770	98.10	1.4261	24	666.0	
20.20										
396.90	30.81	7.20								
24.39380	0.00	18.100	0	0.7000	4.6520	100.00	1.4672	24	666.0	
20.20										
396.90	28.28	10.50								
22.59710	0.00	18.100	0	0.7000	5.0000	89.50	1.5184	24	666.0	
20.20										
396.90	31.99	7.40								
14.33370	0.00	18.100	0	0.7000	4.8800	100.00	1.5895	24	666.0	
20.20										
372.92	30.62	10.20								
8.15174	0.00	18.100	0	0.7000	5.3900	98.90	1.7281	24	666.0	
20.20										
396.90	20.85	11.50								
6.96215	0.00	18.100	0	0.7000	5.7130	97.00	1.9265	24	666.0	
20.20										
394.43	17.11	15.10								
5.29305	0.00	18.100	0	0.7000	6.0510	82.50	2.1678	24	666.0	
20.20										
378.38	18.76	23.20								
11.57790	0.00	18.100	0	0.7000	5.0360	97.00	1.7700	24	666.0	
20.20										
396.90	25.68	9.70								
8.64476	0.00	18.100	0	0.6930	6.1930	92.60	1.7912	24	666.0	
20.20										
396.90	15.17	13.80								
13.35980	0.00	18.100	0	0.6930	5.8870	94.70	1.7821	24	666.0	
20.20										
396.90	16.35	12.70								
8.71675	0.00	18.100	0	0.6930	6.4710	98.80	1.7257	24	666.0	
20.20										
391.98	17.12	13.10								
5.87205	0.00	18.100	0	0.6930	6.4050	96.00	1.6768	24	666.0	
20.20										
396.90	19.37	12.50								
7.67202	0.00	18.100	0	0.6930	5.7470	98.90	1.6334	24	666.0	
20.20										
393.10	19.92	8.50								
38.35180	0.00	18.100	0	0.6930	5.4530	100.00	1.4896	24	666.0	



20.20										
396.90	30.59	5.00								
9.91655	0.00	18.100	0	0.6930	5.8520	77.80	1.5004	24	666.0	
20.20										
338.16	29.97	6.30								
25.04610	0.00	18.100	0	0.6930	5.9870	100.00	1.5888	24	666.0	
20.20										
396.90	26.77	5.60								
14.23620	0.00	18.100	0	0.6930	6.3430	100.00	1.5741	24	666.0	
20.20										
396.90	20.32	7.20								
9.59571	0.00	18.100	0	0.6930	6.4040	100.00	1.6390	24	666.0	
20.20										
376.11	20.31	12.10								
24.80170	0.00	18.100	0	0.6930	5.3490	96.00	1.7028	24	666.0	
20.20										
396.90	19.77	8.30								
41.52920	0.00	18.100	0	0.6930	5.5310	85.40	1.6074	24	666.0	
20.20										
329.46	27.38	8.50								
67.92080	0.00	18.100	0	0.6930	5.6830	100.00	1.4254	24	666.0	
20.20										
384.97	22.98	5.00								
20.71620	0.00	18.100	0	0.6590	4.1380	100.00	1.1781	24	666.0	
20.20										
370.22	23.34	11.90								
11.95110	0.00	18.100	0	0.6590	5.6080	100.00	1.2852	24	666.0	
20.20										
332.09	12.13	27.90								
7.40389	0.00	18.100	0	0.5970	5.6170	97.90	1.4547	24	666.0	
20.20										
314.64	26.40	17.20								
14.43830	0.00	18.100	0	0.5970	6.8520	100.00	1.4655	24	666.0	
20.20										
179.36	19.78	27.50								
51.13580	0.00	18.100	0	0.5970	5.7570	100.00	1.4130	24	666.0	
20.20										
2.60	10.11	15.00								
14.05070	0.00	18.100	0	0.5970	6.6570	100.00	1.5275	24	666.0	
20.20										
35.05	21.22	17.20								
18.81100	0.00	18.100	0	0.5970	4.6280	100.00	1.5539	24	666.0	
20.20										
28.79	34.37	17.90								
28.65580	0.00	18.100	0	0.5970	5.1550	100.00	1.5894	24	666.0	
20.20										
210.97	20.08	16.30								
45.74610	0.00	18.100	0	0.6930	4.5190	100.00	1.6582	24	666.0	
20.20										
88.27	36.98	7.00								
18.08460	0.00	18.100	0	0.6790	6.4340	100.00	1.8347	24	666.0	

20.20										
27.25	29.05	7.20								
10.83420	0.00	18.100	0	0.6790	6.7820	90.80	1.8195	24	666.0	
20.20										
21.57	25.79	7.50								
25.94060	0.00	18.100	0	0.6790	5.3040	89.10	1.6475	24	666.0	
20.20										
127.36	26.64	10.40								
73.53410	0.00	18.100	0	0.6790	5.9570	100.00	1.8026	24	666.0	
20.20										
16.45	20.62	8.80								
11.81230	0.00	18.100	0	0.7180	6.8240	76.50	1.7940	24	666.0	
20.20										
48.45	22.74	8.40								
11.08740	0.00	18.100	0	0.7180	6.4110	100.00	1.8589	24	666.0	
20.20										
318.75	15.02	16.70								
7.02259	0.00	18.100	0	0.7180	6.0060	95.30	1.8746	24	666.0	
20.20										
319.98	15.70	14.20								
12.04820	0.00	18.100	0	0.6140	5.6480	87.60	1.9512	24	666.0	
20.20										
291.55	14.10	20.80								
7.05042	0.00	18.100	0	0.6140	6.1030	85.10	2.0218	24	666.0	
20.20										
2.52	23.29	13.40								
8.79212	0.00	18.100	0	0.5840	5.5650	70.60	2.0635	24	666.0	
20.20										
3.65	17.16	11.70								
15.86030	0.00	18.100	0	0.6790	5.8960	95.40	1.9096	24	666.0	
20.20										
7.68	24.39	8.30								
12.24720	0.00	18.100	0	0.5840	5.8370	59.70	1.9976	24	666.0	
20.20										
24.65	15.69	10.20								
37.66190	0.00	18.100	0	0.6790	6.2020	78.70	1.8629	24	666.0	
20.20										
18.82	14.52	10.90								
7.36711	0.00	18.100	0	0.6790	6.1930	78.10	1.9356	24	666.0	
20.20										
96.73	21.52	11.00								
9.33889	0.00	18.100	0	0.6790	6.3800	95.60	1.9682	24	666.0	
20.20										
60.72	24.08	9.50								
8.49213	0.00	18.100	0	0.5840	6.3480	86.10	2.0527	24	666.0	
20.20										
83.45	17.64	14.50								
10.06230	0.00	18.100	0	0.5840	6.8330	94.30	2.0882	24	666.0	
20.20										
81.33	19.69	14.10								
6.44405	0.00	18.100	0	0.5840	6.4250	74.80	2.2004	24	666.0	

20.20										
97.95	12.03	16.10								
5.58107	0.00	18.100	0	0.7130	6.4360	87.90	2.3158	24	666.0	
20.20										
100.19	16.22	14.30								
13.91340	0.00	18.100	0	0.7130	6.2080	95.00	2.2222	24	666.0	
20.20										
100.63	15.17	11.70								
11.16040	0.00	18.100	0	0.7400	6.6290	94.60	2.1247	24	666.0	
20.20										
109.85	23.27	13.40								
14.42080	0.00	18.100	0	0.7400	6.4610	93.30	2.0026	24	666.0	
20.20										
27.49	18.05	9.60								
15.17720	0.00	18.100	0	0.7400	6.1520	100.00	1.9142	24	666.0	
20.20										
9.32	26.45	8.70								
13.67810	0.00	18.100	0	0.7400	5.9350	87.90	1.8206	24	666.0	
20.20										
68.95	34.02	8.40								
9.39063	0.00	18.100	0	0.7400	5.6270	93.90	1.8172	24	666.0	
20.20										
396.90	22.88	12.80								
22.05110	0.00	18.100	0	0.7400	5.8180	92.40	1.8662	24	666.0	
20.20										
391.45	22.11	10.50								
9.72418	0.00	18.100	0	0.7400	6.4060	97.20	2.0651	24	666.0	
20.20										
385.96	19.52	17.10								
5.66637	0.00	18.100	0	0.7400	6.2190	100.00	2.0048	24	666.0	
20.20										
395.69	16.59	18.40								
9.96654	0.00	18.100	0	0.7400	6.4850	100.00	1.9784	24	666.0	
20.20										
386.73	18.85	15.40								
12.80230	0.00	18.100	0	0.7400	5.8540	96.60	1.8956	24	666.0	
20.20										
240.52	23.79	10.80								
10.67180	0.00	18.100	0	0.7400	6.4590	94.80	1.9879	24	666.0	
20.20										
43.06	23.98	11.80								
6.28807	0.00	18.100	0	0.7400	6.3410	96.40	2.0720	24	666.0	
20.20										
318.01	17.79	14.90								
9.92485	0.00	18.100	0	0.7400	6.2510	96.60	2.1980	24	666.0	
20.20										
388.52	16.44	12.60								
9.32909	0.00	18.100	0	0.7130	6.1850	98.70	2.2616	24	666.0	
20.20										
396.90	18.13	14.10								
7.52601	0.00	18.100	0	0.7130	6.4170	98.30	2.1850	24	666.0	

20.20										
304.21	19.31	13.00								
6.71772	0.00	18.100	0	0.7130	6.7490	92.60	2.3236	24	666.0	
20.20										
0.32	17.44	13.40								
5.44114	0.00	18.100	0	0.7130	6.6550	98.20	2.3552	24	666.0	
20.20										
355.29	17.73	15.20								
5.09017	0.00	18.100	0	0.7130	6.2970	91.80	2.3682	24	666.0	
20.20										
385.09	17.27	16.10								
8.24809	0.00	18.100	0	0.7130	7.3930	99.30	2.4527	24	666.0	
20.20										
375.87	16.74	17.80								
9.51363	0.00	18.100	0	0.7130	6.7280	94.10	2.4961	24	666.0	
20.20										
6.68	18.71	14.90								
4.75237	0.00	18.100	0	0.7130	6.5250	86.50	2.4358	24	666.0	
20.20										
50.92	18.13	14.10								
4.66883	0.00	18.100	0	0.7130	5.9760	87.90	2.5806	24	666.0	
20.20										
10.48	19.01	12.70								
8.20058	0.00	18.100	0	0.7130	5.9360	80.30	2.7792	24	666.0	
20.20										
3.50	16.94	13.50								
7.75223	0.00	18.100	0	0.7130	6.3010	83.70	2.7831	24	666.0	
20.20										
272.21	16.23	14.90								
6.80117	0.00	18.100	0	0.7130	6.0810	84.40	2.7175	24	666.0	
20.20										
396.90	14.70	20.00								
4.81213	0.00	18.100	0	0.7130	6.7010	90.00	2.5975	24	666.0	
20.20										
255.23	16.42	16.40								
3.69311	0.00	18.100	0	0.7130	6.3760	88.40	2.5671	24	666.0	
20.20										
391.43	14.65	17.70								
6.65492	0.00	18.100	0	0.7130	6.3170	83.00	2.7344	24	666.0	
20.20										
396.90	13.99	19.50								
5.82115	0.00	18.100	0	0.7130	6.5130	89.90	2.8016	24	666.0	
20.20										
393.82	10.29	20.20								
7.83932	0.00	18.100	0	0.6550	6.2090	65.40	2.9634	24	666.0	
20.20										
396.90	13.22	21.40								
3.16360	0.00	18.100	0	0.6550	5.7590	48.20	3.0665	24	666.0	
20.20										
334.40	14.13	19.90								
3.77498	0.00	18.100	0	0.6550	5.9520	84.70	2.8715	24	666.0	

20.20										
22.01	17.15	19.00								
4.42228	0.00	18.100	0	0.5840	6.0030	94.50	2.5403	24	666.0	
20.20										
331.29	21.32	19.10								
15.57570	0.00	18.100	0	0.5800	5.9260	71.00	2.9084	24	666.0	
20.20										
368.74	18.13	19.10								
13.07510	0.00	18.100	0	0.5800	5.7130	56.70	2.8237	24	666.0	
20.20										
396.90	14.76	20.10								
4.34879	0.00	18.100	0	0.5800	6.1670	84.00	3.0334	24	666.0	
20.20										
396.90	16.29	19.90								
4.03841	0.00	18.100	0	0.5320	6.2290	90.70	3.0993	24	666.0	
20.20										
395.33	12.87	19.60								
3.56868	0.00	18.100	0	0.5800	6.4370	75.00	2.8965	24	666.0	
20.20										
393.37	14.36	23.20								
4.64689	0.00	18.100	0	0.6140	6.9800	67.60	2.5329	24	666.0	
20.20										
374.68	11.66	29.80								
8.05579	0.00	18.100	0	0.5840	5.4270	95.40	2.4298	24	666.0	
20.20										
352.58	18.14	13.80								
6.39312	0.00	18.100	0	0.5840	6.1620	97.40	2.2060	24	666.0	
20.20										
302.76	24.10	13.30								
4.87141	0.00	18.100	0	0.6140	6.4840	93.60	2.3053	24	666.0	
20.20										
396.21	18.68	16.70								
15.02340	0.00	18.100	0	0.6140	5.3040	97.30	2.1007	24	666.0	
20.20										
349.48	24.91	12.00								
10.23300	0.00	18.100	0	0.6140	6.1850	96.70	2.1705	24	666.0	
20.20										
379.70	18.03	14.60								
14.33370	0.00	18.100	0	0.6140	6.2290	88.00	1.9512	24	666.0	
20.20										
383.32	13.11	21.40								
5.82401	0.00	18.100	0	0.5320	6.2420	64.70	3.4242	24	666.0	
20.20										
396.90	10.74	23.00								
5.70818	0.00	18.100	0	0.5320	6.7500	74.90	3.3317	24	666.0	
20.20										
393.07	7.74	23.70								
5.73116	0.00	18.100	0	0.5320	7.0610	77.00	3.4106	24	666.0	
20.20										
395.28	7.01	25.00								
2.81838	0.00	18.100	0	0.5320	5.7620	40.30	4.0983	24	666.0	

20.20										
392.92	10.42	21.80								
2.37857	0.00	18.100	0	0.5830	5.8710	41.90	3.7240	24	666.0	
20.20										
370.73	13.34	20.60								
3.67367	0.00	18.100	0	0.5830	6.3120	51.90	3.9917	24	666.0	
20.20										
388.62	10.58	21.20								
5.69175	0.00	18.100	0	0.5830	6.1140	79.80	3.5459	24	666.0	
20.20										
392.68	14.98	19.10								
4.83567	0.00	18.100	0	0.5830	5.9050	53.20	3.1523	24	666.0	
20.20										
388.22	11.45	20.60								
0.15086	0.00	27.740	0	0.6090	5.4540	92.70	1.8209	4	711.0	
20.10										
395.09	18.06	15.20								
0.18337	0.00	27.740	0	0.6090	5.4140	98.30	1.7554	4	711.0	
20.10										
344.05	23.97	7.00								
0.20746	0.00	27.740	0	0.6090	5.0930	98.00	1.8226	4	711.0	
20.10										
318.43	29.68	8.10								
0.10574	0.00	27.740	0	0.6090	5.9830	98.80	1.8681	4	711.0	
20.10										
390.11	18.07	13.60								
0.11132	0.00	27.740	0	0.6090	5.9830	83.50	2.1099	4	711.0	
20.10										
396.90	13.35	20.10								
0.17331	0.00	9.690	0	0.5850	5.7070	54.00	2.3817	6	391.0	
19.20										
396.90	12.01	21.80								
0.27957	0.00	9.690	0	0.5850	5.9260	42.60	2.3817	6	391.0	
19.20										
396.90	13.59	24.50								
0.17899	0.00	9.690	0	0.5850	5.6700	28.80	2.7986	6	391.0	
19.20										
393.29	17.60	23.10								
0.28960	0.00	9.690	0	0.5850	5.3900	72.90	2.7986	6	391.0	
19.20										
396.90	21.14	19.70								
0.26838	0.00	9.690	0	0.5850	5.7940	70.60	2.8927	6	391.0	
19.20										
396.90	14.10	18.30								
0.23912	0.00	9.690	0	0.5850	6.0190	65.30	2.4091	6	391.0	
19.20										
396.90	12.92	21.20								
0.17783	0.00	9.690	0	0.5850	5.5690	73.50	2.3999	6	391.0	
19.20										
395.77	15.10	17.50								
0.22438	0.00	9.690	0	0.5850	6.0270	79.70	2.4982	6	391.0	

