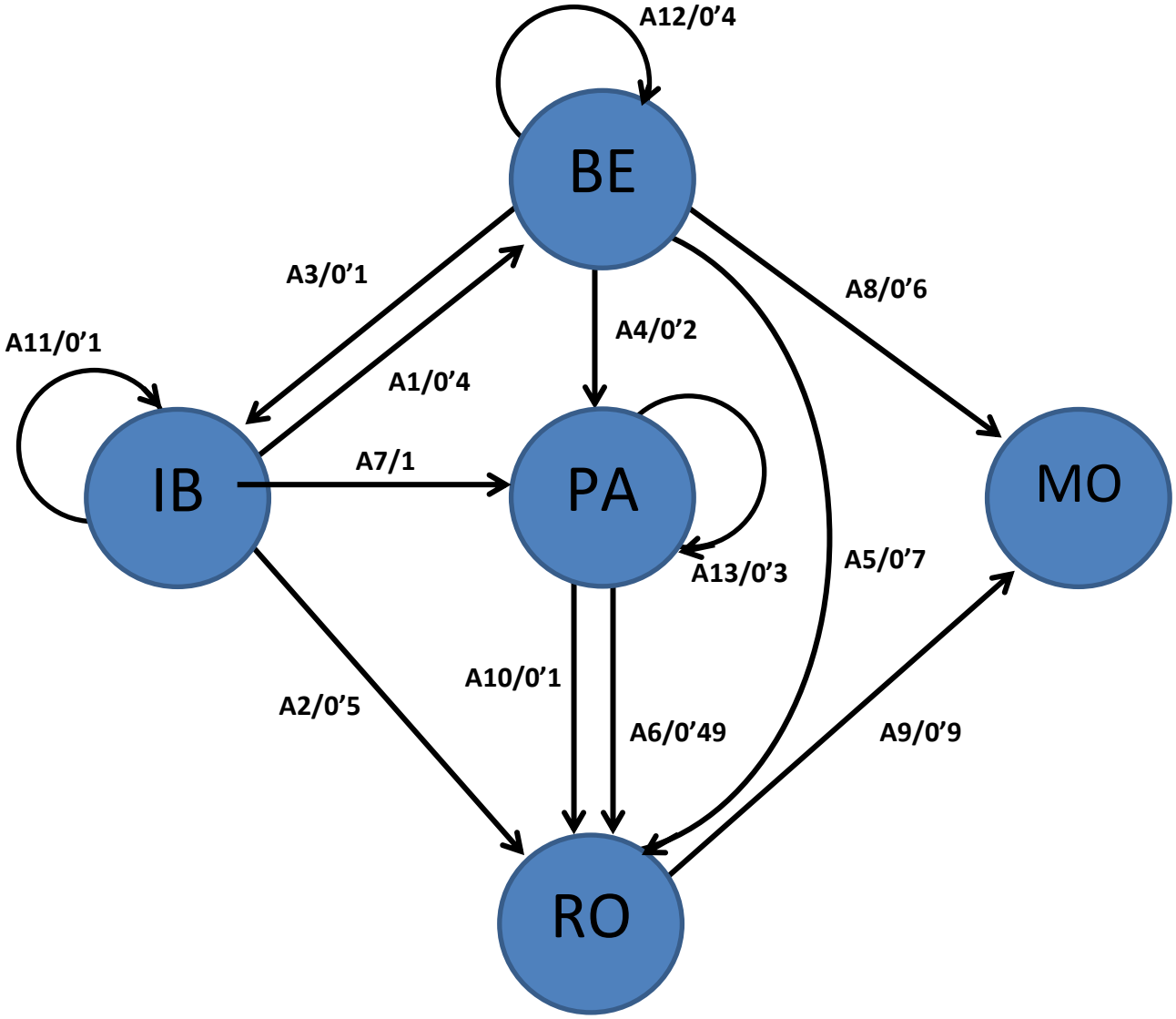
Inteligencia Artificial

TP6-2

Fernando Aliaga Ramón
Grupo 431
NIA: 610610

EJERCICIO 1


A12/0'4
BE
A3/0'1
A8/0'6
A11/0'1
A4/0'2
A1/0'4
IB
A7/1
PA
MO
A13/0'3
A5/0'7
A10/0'1
A2/0'5
A6/0'49
A9/0'9
RO

Resultados Ejercicios 2-3

U =

16.7879
18.9002
17.5782
18.7812
19.9991

Q =

16.7879	15.8203	15.1090	15.1090
18.0101	17.5071	18.9002	18.0101
16.8203	17.5782	16.8203	16.8203
17.9030	17.9030	17.9030	18.7812
19.9991	19.9991	19.9991	19.9991

iter_v = 95

util =

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2.2761	4.3219	3.2203	4.2490	5.4200
3.6859	5.7792	4.5464	5.6800	6.8780
4.9861	7.0913	5.8059	6.9804	8.1902
6.1627	8.2723	6.9652	8.1566	9.3712
7.2240	9.3352	8.0193	9.2175	10.4341
8.1799	10.2918	8.9722	10.1733	11.3907
9.0405	11.1527	9.8317	11.0339	12.2516
9.8153	11.9275	10.6059	11.8086	13.0264
10.5126	12.6249	11.3030	12.5059	13.7238
11.1402	13.2525	11.9306	13.1335	14.3514
11.7050	13.8174	12.4954	13.6984	14.9163
12.2134	14.3257	13.0037	14.2068	15.4246
12.6709	14.7833	13.4613	14.6643	15.8822
13.0827	15.1951	13.8730	15.0761	16.2940
13.4533	15.5657	14.2437	15.4467	16.6646
13.7869	15.8992	14.5772	15.7802	16.9981
14.0870	16.1994	14.8774	16.0804	17.2983
14.3572	16.4696	15.1476	16.3506	17.5685
14.6004	16.7127	15.3907	16.5937	17.8116
14.8192	16.9316	15.6095	16.8126	18.0305
15.0162	17.1285	15.8065	17.0095	18.2274
15.1934	17.3058	15.9838	17.1868	18.4047
15.3530	17.4653	16.1433	17.3463	18.5642
15.4965	17.6089	16.2869	17.4899	18.7078
15.6258	17.7381	16.4161	17.6191	18.8370
15.7421	17.8544	16.5324	17.7354	18.9533
15.8467	17.9591	16.6371	17.8401	19.0580
15.9409	18.0533	16.7313	17.9343	19.1522
16.0257	18.1381	16.8160	18.0191	19.2370
16.1020	18.2144	16.8924	18.0954	19.3133
16.1707	18.2830	16.9610	18.1641	19.3819
16.2325	18.3448	17.0228	18.2259	19.4437
16.2881	18.4005	17.0785	18.2815	19.4994
16.3382	18.4505	17.1285	18.3315	19.5494
16.3832	18.4956	17.1736	18.3766	19.5945
16.4238	18.5361	17.2141	18.4172	19.6350
16.4603	18.5726	17.2506	18.4537	19.6715
16.4931	18.6055	17.2835	18.4865	19.7044
16.5227	18.6350	17.3130	18.5161	19.7339
16.5493	18.6616	17.3396	18.5427	19.7605
16.5732	18.6856	17.3636	18.5666	19.7845
16.5948	18.7071	17.3851	18.5882	19.8060
16.6142	18.7265	17.4045	18.6076	19.8254
16.6316	18.7440	17.4220	18.6250	19.8429
16.6474	18.7597	17.4377	18.6407	19.8586
16.6615	18.7738	17.4518	18.6549	19.8727
16.6742	18.7866	17.4646	18.6676	19.8855
16.6857	18.7980	17.4760	18.6790	19.8969
16.6960	18.8083	17.4863	18.6893	19.9072
16.7053	18.8176	17.4956	18.6986	19.9165
16.7136	18.8260	17.5039	18.7070	19.9249
16.7211	18.8335	17.5115	18.7145	19.9324
16.7279	18.8402	17.5182	18.7213	19.9391
16.7340	18.8463	17.5243	18.7273	19.9452
16.7395	18.8518	17.5298	18.7328	19.9507
16.7444	18.8567	17.5347	18.7377	19.9556
16.7488	18.8612	17.5392	18.7422	19.9601
16.7528	18.8652	17.5431	18.7462	19.9641
16.7564	18.8688	17.5467	18.7498	19.9677
16.7596	18.8720	17.5500	18.7530	19.9709
16.7626	18.8749	17.5529	18.7559	19.9738
16.7652	18.8775	17.5555	18.7585	19.9764
16.7675	18.8799	17.5579	18.7609	19.9788
16.7697	18.8820	17.5600	18.7630	19.9809
16.7716	18.8839	17.5619	18.7649	19.9828
16.7733	18.8856	17.5636	18.7666	19.9845
16.7748	18.8872	17.5652	18.7682	19.9861
16.7762	18.8886	17.5666	18.7696	19.9875
16.7775	18.8898	17.5678	18.7708	19.9887
16.7786	18.8909	17.5689	18.7720	19.9898
16.7796	18.8920	17.5700	18.7730	19.9909
16.7805	18.8929	17.5709	18.7739	19.9918
16.7814	18.8937	17.5717	18.7747	19.9926
16.7821	18.8944	17.5724	18.7755	19.9933
16.7828	18.8951	17.5731	18.7761	19.9940
16.7834	18.8957	17.5737	18.7767	19.9946

16.7839	18.8962	17.5742	18.7773	19.9951
16.7844	18.8967	17.5747	18.7777	19.9956
16.7848	18.8972	17.5752	18.7782	19.9961
16.7852	18.8976	17.5755	18.7786	19.9965
16.7856	18.8979	17.5759	18.7789	19.9968
16.7859	18.8982	17.5762	18.7793	19.9971
16.7862	18.8985	17.5765	18.7795	19.9974
16.7864	18.8988	17.5768	18.7798	19.9977
16.7867	18.8990	17.5770	18.7800	19.9979
16.7869	18.8992	17.5772	18.7802	19.9981
16.7871	18.8994	17.5774	18.7804	19.9983
16.7872	18.8996	17.5776	18.7806	19.9985
16.7874	18.8997	17.5777	18.7807	19.9986
16.7875	18.8999	17.5779	18.7809	19.9988
16.7876	18.9000	17.5780	18.7810	19.9989
16.7878	18.9001	17.5781	18.7811	19.9990
16.7879	18.9002	17.5782	18.7812	19.9991

Resultados Ejercicios 4

a)

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0 0 1 0 0;
0 0 0 1 0;
0 0 0 0 1]

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18.7796
17.5782
18.7812
19.9991

Q =

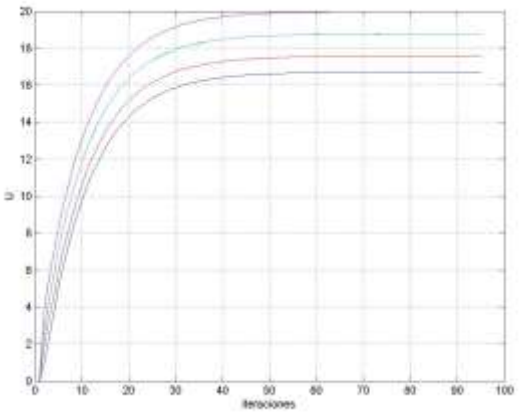
16.7161	15.8203	15.0444	15.0444
17.9015	17.5006	18.7796	17.9015
16.8203	17.5782	16.8203	16.8203
17.9030	17.9030	17.9030	18.7812
19.9991	19.9991	19.9991	19.9991

iter_v = 95

util =

0	0	0	0	0
0.9000	2.6200	1.9000	2.7100	3.8000
2.2194	4.2076	3.2203	4.2490	5.4200
3.6154	5.6598	4.5464	5.6800	6.8780
4.9134	6.9709	5.8059	6.9804	8.1902
6.0904	8.1517	6.9652	8.1566	9.3712
7.1519	9.2146	8.0193	9.2175	10.4341
8.1080	10.1711	8.9722	10.1733	11.3907
8.9687	11.0321	9.8317	11.0339	12.2516
9.7435	11.8069	10.6059	11.8086	13.0264
10.4408	12.5043	11.3030	12.5059	13.7238
11.0684	13.1319	11.9306	13.1335	14.3514
11.6333	13.6968	12.4954	13.6984	14.9163
12.1417	14.2051	13.0037	14.2068	15.4246
12.5992	14.6627	13.4613	14.6643	15.8822
13.0110	15.0744	13.8730	15.0761	16.2940
13.3816	15.4451	14.2437	15.4467	16.6646
13.7151	15.7786	14.5772	15.7802	16.9981
14.0153	16.0788	14.8774	16.0804	17.2983
14.2855	16.3490	15.1476	16.3506	17.5685
14.5286	16.5921	15.3907	16.5937	17.8116
14.7475	16.8109	15.6095	16.8126	18.0305
14.9444	17.0079	15.8065	17.0095	18.2274
15.1217	17.1852	15.9838	17.1868	18.4047
15.2812	17.3447	16.1433	17.3463	18.5642
15.4248	17.4883	16.2869	17.4899	18.7078
15.5540	17.6175	16.4161	17.6191	18.8370
15.6703	17.7338	16.5324	17.7354	18.9533
15.7750	17.8385	16.6371	17.8401	19.0580
15.8692	17.9327	16.7313	17.9343	19.1522
15.9540	18.0174	16.8160	18.0191	19.2370
16.0303	18.0938	16.8924	18.0954	19.3133
16.0990	18.1624	16.9610	18.1641	19.3819
16.1608	18.2242	17.0228	18.2259	19.4437
16.2164	18.2799	17.0785	18.2815	19.4994
16.2665	18.3299	17.1285	18.3315	19.5494
16.3115	18.3750	17.1736	18.3766	19.5945
16.3521	18.4155	17.2141	18.4172	19.6350
16.3886	18.4520	17.2506	18.4537	19.6715
16.4214	18.4849	17.2835	18.4865	19.7044
16.4510	18.5144	17.3130	18.5161	19.7339
16.4776	18.5410	17.3396	18.5427	19.7605
16.5015	18.5650	17.3636	18.5666	19.7845
16.5231	18.5865	17.3851	18.5882	19.8060
16.5425	18.6059	17.4045	18.6076	19.8254
16.5599	18.6234	17.4220	18.6250	19.8429
16.5756	18.6391	17.4377	18.6407	19.8586
16.5898	18.6532	17.4518	18.6549	19.8727
16.6025	18.6660	17.4646	18.6676	19.8855
16.6139	18.6774	17.4760	18.6790	19.8969
16.6243	18.6877	17.4863	18.6893	19.9072
16.6335	18.6970	17.4956	18.6986	19.9165
16.6419	18.7053	17.5039	18.7070	19.9249
16.6494	18.7129	17.5115	18.7145	19.9324
16.6562	18.7196	17.5182	18.7213	19.9391
16.6622	18.7257	17.5243	18.7273	19.9452
16.6677	18.7312	17.5298	18.7328	19.9507
16.6726	18.7361	17.5347	18.7377	19.9556
16.6771	18.7406	17.5392	18.7422	19.9601
16.6811	18.7445	17.5431	18.7462	19.9641
16.6847	18.7481	17.5467	18.7498	19.9677
16.6879	18.7514	17.5500	18.7530	19.9709
16.6908	18.7543	17.5529	18.7559	19.9738
16.6934	18.7569	17.5555	18.7585	19.9764
16.6958	18.7593	17.5579	18.7609	19.9788
16.6979	18.7614	17.5600	18.7630	19.9809
16.6998	18.7633	17.5619	18.7649	19.9828
16.7015	18.7650	17.5636	18.7666	19.9845
16.7031	18.7666	17.5652	18.7682	19.9861
16.7045	18.7680	17.5666	18.7696	19.9875
16.7057	18.7692	17.5678	18.7708	19.9887
16.7069	18.7703	17.5689	18.7720	19.9898
16.7079	18.7714	17.5700	18.7730	19.9909
16.7088	18.7723	17.5709	18.7739	19.9918

16.7096	18.7731	17.5717	18.7747	19.9926
16.7104	18.7738	17.5724	18.7755	19.9933
16.7110	18.7745	17.5731	18.7761	19.9940
16.7116	18.7751	17.5737	18.7767	19.9946
16.7122	18.7756	17.5742	18.7773	19.9951
16.7127	18.7761	17.5747	18.7777	19.9956
16.7131	18.7766	17.5752	18.7782	19.9961
16.7135	18.7769	17.5755	18.7786	19.9965
16.7138	18.7773	17.5759	18.7789	19.9968
16.7142	18.7776	17.5762	18.7793	19.9971
16.7144	18.7779	17.5765	18.7795	19.9974
16.7147	18.7782	17.5768	18.7798	19.9977
16.7149	18.7784	17.5770	18.7800	19.9979
16.7151	18.7786	17.5772	18.7802	19.9981
16.7153	18.7788	17.5774	18.7804	19.9983
16.7155	18.7790	17.5776	18.7806	19.9985
16.7156	18.7791	17.5777	18.7807	19.9986
16.7158	18.7793	17.5779	18.7809	19.9988
16.7159	18.7794	17.5780	18.7810	19.9989
16.7160	18.7795	17.5781	18.7811	19.9990
16.7161	18.7796	17.5782	18.7812	19.9991



b)

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17.4200
17.5782
18.7812
19.9991

Q =
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16.6779 17.4200 16.9100 16.6779
16.8203 17.5782 16.8203 16.8203
17.9030 17.9030 17.9030 18.7812
19.9991 19.9991 19.9991 19.9991

iter_v = 95

util =
0 0 0 0 0
0.9000 1.9900 1.9000 2.7100 3.8000
1.8225 3.1303 3.2203 4.2490 5.4200
2.9009 4.4205 4.5464 5.6800 6.8780
4.0917 5.6578 5.8059 6.9804 8.1902
5.2253 6.8109 6.9652 8.1566 9.3712
6.2687 7.8627 8.0193 9.2175 10.4341
7.2173 8.8147 8.9722 10.1733 11.3907
8.0750 9.6738 9.8317 11.0339 12.2516
8.8485 10.4478 10.6059 11.8086 13.0264
9.5453 11.1449 11.3030 12.5059 13.7238
10.1727 11.7724 11.9306 13.1335 14.3514
10.7375 12.3372 12.4954 13.6984 14.9163
11.2458 12.8455 13.0037 14.2068 15.4246
11.7034 13.3031 13.4613 14.6643 15.8822
12.1151 13.7148 13.8730 15.0761 16.2940
12.4857 14.0854 14.2437 15.4467 16.6646
12.8193 14.4190 14.5772 15.7802 16.9981
13.1195 14.7192 14.8774 16.0804 17.2983
13.3896 14.9893 15.1476 16.3506 17.5685
13.6328 15.2325 15.3907 16.5937 17.8116
13.8516 15.4513 15.6095 16.8126 18.0305
14.0486 15.6483 15.8065 17.0095 18.2274
14.2259 15.8255 15.9838 17.1868 18.4047
14.3854 15.9851 16.1433 17.3463 18.5642
14.5290 16.1287 16.2869 17.4899 18.7078
14.6582 16.2579 16.4161 17.6191 18.8370
14.7745 16.3742 16.5324 17.7354 18.9533
14.8792 16.4789 16.6371 17.8401 19.0580
14.9734 16.5731 16.7313 17.9343 19.1522
15.0581 16.6578 16.8160 18.0191 19.2370
15.1344 16.7341 16.8924 18.0954 19.3133
15.2031 16.8028 16.9610 18.1641 19.3819
15.2649 16.8646 17.0228 18.2259 19.4437
15.3205 16.9202 17.0785 18.2815 19.4994
15.3706 16.9703 17.1285 18.3315 19.5494
15.4157 17.0154 17.1736 18.3766 19.5945
15.4562 17.0559 17.2141 18.4172 19.6350
15.4927 17.0924 17.2506 18.4537 19.6715
15.5256 17.1253 17.2835 18.4865 19.7044
15.5551 17.1548 17.3130 18.5161 19.7339
15.5817 17.1814 17.3396 18.5427 19.7605
15.6057 17.2054 17.3636 18.5666 19.7845
15.6272 17.2269 17.3851 18.5882 19.8060
15.6466 17.2463 17.4045 18.6076 19.8254
15.6641 17.2638 17.4220 18.6250 19.8429
15.6798 17.2795 17.4377 18.6407 19.8586
15.6939 17.2936 17.4518 18.6549 19.8727
15.7067 17.3063 17.4646 18.6676 19.8855
15.7181 17.3178 17.4760 18.6790 19.8969
15.7284 17.3281 17.4863 18.6893 19.9072
15.7377 17.3374 17.4956 18.6986 19.9165
15.7460 17.3457 17.5039 18.7070 19.9249

15.7536 17.3532 17.5115 18.7145 19.9324
15.7603 17.3600 17.5182 18.7213 19.9391
15.7664 17.3661 17.5243 18.7273 19.9452
15.7719 17.3716 17.5298 18.7328 19.9507
15.7768 17.3765 17.5347 18.7377 19.9556
15.7812 17.3809 17.5392 18.7422 19.9601
15.7852 17.3849 17.5431 18.7462 19.9641
15.7888 17.3885 17.5467 18.7498 19.9677
15.7921 17.3918 17.5500 18.7530 19.9709
15.7950 17.3947 17.5529 18.7559 19.9738
15.7976 17.3973 17.5555 18.7585 19.9764
15.8000 17.3997 17.5579 18.7609 19.9788
15.8021 17.4018 17.5600 18.7630 19.9809
15.8040 17.4037 17.5619 18.7649 19.9828
15.8057 17.4054 17.5636 18.7666 19.9845
15.8073 17.4070 17.5652 18.7682 19.9861
15.8086 17.4083 17.5666 18.7696 19.9875
15.8099 17.4096 17.5678 18.7708 19.9887
15.8110 17.4107 17.5689 18.7720 19.9898
15.8120 17.4117 17.5700 18.7730 19.9909
15.8130 17.4127 17.5709 18.7739 19.9918
15.8138 17.4135 17.5717 18.7747 19.9926
15.8145 17.4142 17.5724 18.7755 19.9933
15.8152 17.4149 17.5731 18.7761 19.9940
15.8158 17.4155 17.5737 18.7767 19.9946
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15.8168 17.4165 17.5747 18.7777 19.9956
15.8172 17.4169 17.5752 18.7782 19.9961
15.8176 17.4173 17.5755 18.7786 19.9965
15.8180 17.4177 17.5759 18.7789 19.9968
15.8183 17.4180 17.5762 18.7793 19.9971
15.8186 17.4183 17.5765 18.7795 19.9974
15.8189 17.4186 17.5768 18.7798 19.9977
15.8191 17.4188 17.5770 18.7800 19.9979
15.8193 17.4190 17.5772 18.7802 19.9981
15.8195 17.4192 17.5774 18.7804 19.9983
15.8197 17.4194 17.5776 18.7806 19.9985
15.8198 17.4195 17.5777 18.7807 19.9986
15.8199 17.4196 17.5779 18.7809 19.9988
15.8201 17.4198 17.5780 18.7810 19.9989
15.8202 17.4199 17.5781 18.7811 19.9990
15.8203 17.4200 17.5782 18.7812 19.9991

c)

U =
16.7879
18.9002
17.5782
18.7812
19.9991

Q =
16.7879 15.8203 15.1090 15.1090
18.0101 17.5071 18.9002 18.0101
16.8203 17.5782 16.8203 16.8203
17.9030 17.9030 17.9030 18.7812
19.9991 19.9991 19.9991 19.9991

iter_v = 95

util =
0 0 0 0 0
0.9000 2.7100 1.9000 2.7100 3.8000
2.2761 4.3219 3.2203 4.2490 5.4200
3.6859 5.7792 4.5464 5.6800 6.8780
4.9861 7.0913 5.8059 6.9804 8.1902
6.1627 8.2723 6.9652 8.1566 9.3712
7.2240 9.3352 8.0193 9.2175 10.4341
8.1799 10.2918 8.9722 10.1733 11.3907
9.0405 11.1527 9.8317 11.0339 12.2516
9.8153 11.9275 10.6059 11.8086 13.0264
10.5126 12.6249 11.3030 12.5059 13.7238
11.1402 13.2525 11.9306 13.1335 14.3514
11.7050 13.8174 12.4954 13.6984 14.9163
12.2134 14.3257 13.0037 14.2068 15.4246
12.6709 14.7833 13.4613 14.6643 15.8822
13.0827 15.1951 13.8730 15.0761 16.2940
13.4533 15.5657 14.2437 15.4467 16.6646
13.7869 15.8992 14.5772 15.7802 16.9981
14.0870 16.1994 14.8774 16.0804 17.2983
14.3572 16.4696 15.1476 16.3506 17.5685
14.6004 16.7127 15.3907 16.5937 17.8116
14.8192 16.9316 15.6095 16.8126 18.0305
15.0162 17.1285 15.8065 17.0095 18.2274
15.1934 17.3058 15.9838 17.1868 18.4047
15.3530 17.4653 16.1433 17.3463 18.5642
15.4965 17.6089 16.2869 17.4899 18.7078
15.6258 17.7381 16.4161 17.6191 18.8370
15.7421 17.8544 16.5324 17.7354 18.9533
15.8467 17.9591 16.6371 17.8401 19.0580
15.9409 18.0533 16.7313 17.9343 19.1522
16.0257 18.1381 16.8160 18.0191 19.2370
16.1020 18.2144 16.8924 18.0954 19.3133
16.1707 18.2830 16.9610 18.1641 19.3819
16.2325 18.3448 17.0228 18.2259 19.4437
16.2881 18.4005 17.0785 18.2815 19.4994

16.3382 18.4505 17.1285 18.3315 19.5494
16.3832 18.4956 17.1736 18.3766 19.5945
16.4238 18.5361 17.2141 18.4172 19.6350
16.4603 18.5726 17.2506 18.4537 19.6715
16.4931 18.6055 17.2835 18.4865 19.7044
16.5227 18.6350 17.3130 18.5161 19.7339
16.5493 18.6616 17.3396 18.5427 19.7605
16.5732 18.6856 17.3636 18.5666 19.7845
16.5948 18.7071 17.3851 18.5882 19.8060
16.6142 18.7265 17.4045 18.6076 19.8254
16.6316 18.7440 17.4220 18.6250 19.8429
16.6474 18.7597 17.4377 18.6407 19.8586
16.6615 18.7738 17.4518 18.6549 19.8727
16.6742 18.7866 17.4646 18.6676 19.8855
16.6857 18.7980 17.4760 18.6790 19.8969
16.6960 18.8083 17.4863 18.6893 19.9072
16.7053 18.8176 17.4956 18.6986 19.9165
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16.7279 18.8402 17.5182 18.7213 19.9391
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16.7395 18.8518 17.5298 18.7328 19.9507
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16.7748 18.8872 17.5652 18.7682 19.9861
16.7762 18.8886 17.5666 18.7696 19.9875
16.7775 18.8898 17.5678 18.7708 19.9887
16.7786 18.8909 17.5689 18.7720 19.9898
16.7796 18.8920 17.5700 18.7730 19.9909
16.7805 18.8929 17.5709 18.7739 19.9918
16.7814 18.8937 17.5717 18.7747 19.9926
16.7821 18.8944 17.5724 18.7755 19.9933
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16.7834 18.8957 17.5737 18.7767 19.9946
16.7839 18.8962 17.5742 18.7773 19.9951
16.7844 18.8967 17.5747 18.7777 19.9956
16.7848 18.8972 17.5752 18.7782 19.9961
16.7852 18.8976 17.5755 18.7786 19.9965
16.7856 18.8979 17.5759 18.7789 19.9968
16.7859 18.8982 17.5762 18.7793 19.9971
16.7862 18.8985 17.5765 18.7795 19.9974
16.7864 18.8988 17.5768 18.7798 19.9977
16.7867 18.8990 17.5770 18.7800 19.9979
16.7869 18.8992 17.5772 18.7802 19.9981
16.7871 18.8994 17.5774 18.7804 19.9983
16.7872 18.8996 17.5776 18.7806 19.9985
16.7874 18.8997 17.5777 18.7807 19.9986
16.7875 18.8999 17.5779 18.7809 19.9988
16.7876 18.9000 17.5780 18.7810 19.9989
16.7878 18.9001 17.5781 18.7811 19.9990
16.7879 18.9002 17.5782 18.7812 19.9991